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## Manufacturers' Record.

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BALTIMORE, AUGUST 8, 1907.

Capt. D. G. Purse of Savannah, Ga., who has been active for years in successful work for material development of the South, in arranging for the circulation in European financial circles of the Pamphlet "Facts About the South," recently published by the MANUFACTURERS' RECORD, writes:

Your pamphlet is the most valuable paper upon the South in her rise from the ashes of defeat penned by anyone since she wore herself out in defending the Constitution of her revolutionary sire. It is read everywhere and sought on the Continent, in evidence of which I am giving you this second order, possibly to be followed by a third one.

### "FIVE THOUSAND IN RACE RIOT"

The fighting element among the whites and blacks in the vicinity of 136th street and Fifth avenue lined up according to their racial prejudices again yesterday, this time to settle a baseball dispute, and when the argument was ended 50 persons required medical treatment, and of that number, two will die. Probably 5000 persons took part in the fight, but the 300 policemen who dispersed the mob after everyone was practically exhausted got only nine prisoners, and of these, two were women.—Baltimore News.

The above brief item condensed by the News from New York papers occupies an inch of space in an obscure part of the paper, and few readers probably saw it. Had this riot occurred in the South, every daily paper in the country, including the News, would have had columns of special dispatches with great scare headlines. Instead of 50 being hurt, the press dispatches would have killed, in reality or by rumor, at least that many and left the reader under the impression that the mob was

in control of the whole section. Imagine 5000 people in a race riot in the South and 300 policemen needed to quell the trouble, and newspapers of the North would have hurried special correspondents off in a jiffy.

### SOUTH'S PLACE IN AMERICAN COMMERCE.

Official figures of the past fiscal year emphasize the steady increase in the importance of the South in America's export trade. The total value of the exports of merchandise from Southern ports was \$734,073,462, an increase of \$92,040,699, or 14.3 per cent., over the preceding year, while the increase at all other ports in the country was but \$44,787,498, or at the rate of 4 per cent. Comparison of the figures for the past two fiscal years is made in the following table:

Districts.	1906.	1907.
Baltimore, Md.	\$109,325,046	\$104,808,952
Brunswick, Ga.	87,305	75,210
Charleston, S. C.	12,626,072	11,225,477
Fernandina, Fla.	661,285	1,082,466
Georgetown, S. C.	6,630,585	8,655,234
Newport News, Va.	12,282	34,732
Norfolk & Portsmouth, Va.	20,119,334	14,932,671
Richmond, Va.	12,027,215	8,359,445
St. Johns, Fla.	11,000	11,474
Savannah, Ga.	294,407	783,799
Savannah, N. C.	64,839,551	63,039,524
Wilmington, N. C.	18,466,929	18,566,468
Apalachicola, Fla.	237,060	329,522
Galveston, Texas.	166,317,652	237,117,921
Key West, Fla.	804,891	1,000,182
Mobile, Ala.	21,724,390	24,468,719
New Orleans, La.	150,479,236	170,562,428
Pearl River, Miss.	6,037,723	8,645,919
Pensacola, Fla.	18,440,122	15,218,433
Sabine, Texas.	1,941,227	1,686,123
St. Marks, Fla.	2,740,803	3,269,569
Tampa, Fla.	225,486	205,581
Braz. de Santiago, Tex.	12,746,135	15,765,555
Corpus Christi, Texas.	9,794,740	11,362,019
Paso del Norte, Texas.	4,842,207	6,075,050
Saluria, Texas.	642,032,763	\$734,073,462
Total.	1,743,864,509	1,889,692,697

Satisfactory as is the total for Southern ports, as, for instance, the fact that the increase at Gulf ports was \$100,359,321, while that at the North Atlantic ports was but \$32,142,611, of which the gain at New York alone was \$20,821,735, there are other facts worthy of earnest consideration by everybody interested in Southern commerce. Of the 85 ports in the country with records either for 1906 or 1907, losses are shown at 24, and of these 8 are Southern ports, and of the 8 ports 6 are South Atlantic ports. This would indicate that the splendid gain made at certain Gulf ports may be at the expense not only of those on the North Atlantic coast, but also of those on the South Atlantic. Then, too, the total value of exports at the 26 Southern ports is but \$106,091,413 greater than the value of exports from New York. That city led the country in the past fiscal year with a total of \$627,982,049, Galveston being second with \$237,117,921, New Orleans third with \$170,562,428, Baltimore fourth with \$104,808,952, Boston fifth with \$100,872,147, and Philadelphia sixth with \$94,832,480.

The changes between 1906 and 1907 showed an increase at North Atlantic ports from \$816,077,058 to \$848,219,069, or by \$32,142,611; an increase at Gulf ports from \$368,723,184 to \$469,082,505, or by \$100,359,321; an increase at Southern ports on the Mexican border from \$27,608,568 to \$33,408,205, or by

\$5,799,637; an increase at Northern border and lake ports from \$176,664,800 to \$198,673,650, or by \$22,008,790; a decrease at South Atlantic ports from \$245,701,011 to \$231,582,752, or by \$14,118,259; a decrease at Pacific ports from \$101,770,160 to \$92,029,634, or by \$9,740,526, and an increase at all other ports from \$7,319,659 to \$7,606,282, or by \$376,623, a total increase for the whole country at all ports from \$1,743,864,509 to \$1,889,692,697, or by \$136,828,197.

Cotton and its products represented more than \$548,000,000 in the total exports from the country. And cotton was influential not only in the splendid showing of the Gulf ports, but also in maintaining the increase for the whole country, for the increase of \$136,828,197 in the past fiscal year does not really compare well with the increase of \$225,302,834 in the preceding year. Of the 1907 increase raw cotton represented \$81,075,606, while iron manufactures, for instance, represented but \$20,545,886. In domestic exports there was a loss of \$9,892,793 in crude foodstuffs and food animals, and of \$1,708,006 in foodstuffs partly or wholly manufactured. It is significant that these losses were accompanied by gains in imports of crude foodstuffs and food animals of \$15,759,317, and of foodstuffs partly or wholly manufactured of \$17,982,622. Comparison of other gains in imports and exports are suggestive. It is made in the following table:

	Exports.	Imports.
Crude materials for manufacturing.	\$93,371,239	\$62,817,155
Manufactured material for manufacturing.	34,403,365	53,950,254
Finished manufactures.	19,888,023	55,979,293
Miscellaneous.	539,346	1,370,338

The total increase in exports of domestic merchandise was \$136,000,574, and in exports of foreign merchandise \$227,623, while the total increase in imports of merchandise was \$207,858,979. The increase in imports was greater by \$71,030,782 than the increase in exports.

It must be borne in mind that these figures deal with values and not with quantities. It would be interesting if it were possible to compare the tonnage of exports in 1906 and 1907. In the absence of the means of comparison it may be noted that there were fallings off in quantity of 34,417,949 bushels of corn, of 42,310,893 bushels of oats, of 385,152,725 yards of cotton cloths, their values decreasing from \$43,181,860 to \$21,239,247; of 48,713,533 pounds of canned beef, the decrease in value being from \$6,430,446 to \$1,615,808, and of 110,791,864 pounds of bacon. The total decrease in the value of meat and dairy products was \$8,597,557. Exports of mineral oil decreased by 7,518,584 gallons, though the value increased \$814,388. There was a decrease of 1,913,215 gallons of cottonseed oil, though the value increased \$2,401,033.

### IN DANCE OF DEATH.

Nebraska railroads are swamped with wheat which is being shipped to markets, and already the traffic is so great that the roads are badly congested. On some lines in a single division are loaded 1000 cars of

wheat daily, and the motive power is not sufficient to keep the sidetracks cleared.—Dispatch from Omaha.

The same story comes from other parts of the country where the crops are abundant. There must be more mileage; single-track roads must be double-tracked; new switches must be put in and railroad yards extended. It is a question of money as well as of labor; but where is the money to come from if the hue and cry is kept up against the railroads and no heed is paid to the practical men who compose the management?—New York Sun.

Yes, hundreds of millions, even billions, are needed and must be expended upon railroad expansion unless traffic congestion is to grow much worse than it has ever been. But what care the politicians, what care the demagogues, what cares the wild mob spirit sweeping over the country for such facts as these. One demagogue rides into political position by fighting for the "dear people," for whom he has as much real love as Satan has for holy water, and away runs every other demagogue, whose name is legion, seeking to outdo his work of evil. Would that, like their betters of old, they could all run headlong down into the ocean of human contempt and be drowned. Otherwise they may lead the good people of the country down to death through business destruction.

### TOLD BY CEMENT.

Illustrating the magnitude of development work throughout the world, a New York banker advises the MANUFACTURERS' RECORD that there is a cement plant in Hongkong owned by English investors which was started a few years ago with an output of 60,000 barrels a year, and which now has an annual capacity of 2,000,000 barrels. It is stated that this great increase has been entirely made by the reinvestment of the profits in the business. Large annual dividends have been declared, and at the same time the privilege given to the stockholders of investing their dividends in new stock. It is said that without exception every stockholder has done this every time, until the output is more than thirty times as great as when the plant was started.

### PARALYZING SOUTHERN ENERGY.

Commenting upon the address recently made before the Nashville Board of Trade by President W. W. Finley of the Southern Railway in advocacy of respect for the Constitution of the country in dealing with railroads, Mr. W. P. Stevens, general manager of the H. Stevens' Sons Company, Macon, Ga., writes to the MANUFACTURERS' RECORD as follows:

Believing that Mr. Finley's address is along the right lines and is fair and open, I beg to say that I fully agree with him as to some of our legislative tactics being oppressive. The transportation companies should be treated the same as all other corporations. If we cripple the transportation companies and make their stock undesirable as investments, we are certainly injuring the passenger as well as the manufacturer by depleting the roadbeds and equipments, when at this time we really require double

the transportation facilities and realize that without properly equipped transportation companies we cannot continue to prosper and develop our resources of the South.

That is a typical expression of the opinion of many substantial business men of the South touching recent anti-corporation manifestations in a number of Southern States. Such men realize with managements of railroads that the operation of the railroads is not perfect, and that their policies in the past have not always been such as to win the confidence and the support of divers communities. They feel that the railroads themselves are not entirely free from responsibility for the radical legislation that has been directed against them. But they know that two wrongs never have made a right and never can, and they understand, probably better than any other class in the community, that drastic action of State authorities against the railroads are the surest means of paralyzing the real energies of the State. It is only necessary to compare the South of 1880, with its 20,000 miles of railroads and its \$7,505,000,000 of real and personal property, with the South of 1907, with its 65,000 miles of railroads and its \$21,000,000,000 worth of real and personal property, or to imagine what the South of today would be had its railroad mileage remained the same for 27 years, to gain some idea of what a tremendous force in Southern development the railroads of that section have been. Fifty years ago the natural resources of the South were as great as they are today, but its aggregate wealth was not \$5,000,000,000. About that time, when there was great activity in railroad building and when the South was making greater progress relatively in that respect than the New England and Middle States combined, one of the most energetic and inspiring Southerners of his day uttered this truth:

God may have given you coal and iron sufficient to work the spindles and navies of the world, but they will sleep in your everlasting hills until the trumpet of Gabriel shall sound unless you do something better than build turnpikes. You may have granaries sufficiently stocked to feed mankind, but mankind will starve and perish before a bushel of grain can reach them.

In such language was epitomized the spirit of the time when Southern States were partners with enterprising individual Southerners in the building of railroads. They may be paraphrased in this day, when three or four Southern States seem to be rivaling one another in policies which, if successful, will not only put a stop to the investment of money in the railroads or other developmental corporations still badly needed, but will also actually cripple, if not destroy, those already established. The paraphrase would read something like this:

"Your billions of tons of coal and iron, of granite and phosphate will return to their sleep in your everlasting hills and plains; there will be no longer anxiety about the exhaustion of your forests; your hundreds of thousands of acres of truck lands will revert to barrens or wastes of weeds; the crescendo of the music of your 10,000,000 spindles will become a faint diminuendo; your furnace stacks will be tenanted by owls and bats; your cotton will become so cheap that Europe will cease to dream of developing competitive cotton-growing areas, and the South will become the permanent home of a race that lives by the day and prefers the shade and leisure of the banana tree to the wealth-creating energy exerted in the mines, the forests, the field, the factory and the mill if you continue to make pos-

sible legislation depriving capital of its legitimate returns."

It is no excuse that corporations have presumed upon their vast privileges. They may be corrected and controlled by the State without the State's committing suicide in the effort to kill them. It is no excuse that Washington has set the pace for rabid assaults upon the great forces of American prosperity. The States can save themselves from extinction only by administering the antitoxins of corporophobia. It is no excuse that States outside the South have been bitten. The South, of all sections, is the least capable of quick recovery from the madness; it is in the best position to be benefited by avoiding it.

#### SIGNIFICANCE OF THE CUBAN ORE DISCOVERY.

The discovery of 600,000,000 tons of ore in Cuba, as reported in the MANUFACTURERS' RECORD last week, is of world-wide importance, for the prophets have been telling us for the last few years that all the known supplies of ore in the world would be exhausted in much less than half a century.

The MANUFACTURERS' RECORD has repeatedly pointed out that while it is doubtless true that within 50 years the world will use up as much ore as has been known to exist, new discoveries must of necessity be made, for it is not conceivable that civilization, so largely dependent as it is upon iron and steel, should be halted by the inability to find a supply of ore. Nature is not likely to leave us in such a condition as that, and yet the magnitude of the world's iron trade can probably be best understood by the layman when told that this Cuban 600,000,000 tons, covering 27,000 acres, 20 feet deep, is only equal to about five years of the world's consumptive requirements of ore at the present rate of increase.

In the summer of 1890, when the census reported during the fiscal year ending June 30 a production of 9,500,000 tons of pig-iron, the newspapers of the country expressed their amazement at the magnitude of this industry. The *Engineering and Mining Journal* referred to this "enormous aggregate of 9,500,000 tons" as illustrating "the extraordinary development of our iron industry," and the *Commercial and Financial Chronicle*, under the heading "Marvelous Development of the Iron Industry," said the actual increase "is truly remarkable," and that "such a rate of growth as these figures reveal comes as a surprise," while others treated this report in the same way. It seems but a very short time to look back to 1890 and to remember the amazement of the country when our iron production reached 9,500,000 tons, but contrast that with the present rate of production, which will give us over 27,000,000 tons this year, and it will be seen that the iron industry has nearly trebled between 1890 and 1907.

In 1890 the late Edward Atkinson, in a comprehensive survey of the world's iron trade, written for the MANUFACTURERS' RECORD, outlined the possibilities of this enormous production of today, and in closing said:

If the forecast presented in this paper is a true one, every existing plant will be called into requisition in the near future which has even a shadow of a right to exist. It is probable that the iron mines of the United States cannot be developed with sufficient rapidity to meet this demand, but the iron furnaces, works, mills and machine shops of the Eastern coast must be sustained by temporary, if not permanent, supplies of ore and coal from Canada and Cuba.

How accurately Mr. Atkinson forecasted present conditions can now be

seen by many who were then skeptical. At that time the skeptic and the pessimist looked upon his forecast of the iron trade with somewhat the same opinion that the pessimist of today regards any effort to forecast the tremendous expansion ahead of us. A few years ago a production of 15,000,000 or 20,000,000 tons of ore in the Lake Superior region was regarded as of surpassing magnitude. When the output reached 30,000,000 tons superlatives were needed to express the amazement of the country at such a growth. But this year, notwithstanding the strike, which has cut short the supply by 2,500,000 tons, we are likely to have a production of Lake Superior ores of considerably over 40,000,000 tons, and we are in sight of the day—and that only a year or two distant—when 50,000,000 tons will be reached by the Lake Superior mines.

The estimate of the amount of available ore in the Lake Superior district varies from 1,500,000,000 to 2,000,000,000 tons, but, stupendous as these figures are, that quantity will be exhausted in the next 20 or 30 years, considering the present accelerating rate of consumption. This does not mean that the Lake Superior district will be exhausted, for doubtless other discoveries will be made there, but only that in 20 or 30 years we shall use up as much Lake Superior ore as is now known there. The experts of Europe and America, who have undertaken to set a limit to the world's iron-ore supply and to claim that practically all of the great ore regions were already known, may find some of their theories upset by this 600,000,000 discovery in Cuba. In the South there have been within the last few years vast discoveries of great importance, and these, like this one in Cuba, only point to the possible, as yet unknown and undiscovered, wealth of raw materials in the South. Fortunate, indeed, for every business interest of the world is the fact that such discoveries are being made, for if it were possible that we had reached the limit and had found all of the great ore deposits of the world we would be in sight of the time when civilization would be halted for the lack of iron and steel. These discoveries, however, do not in any way lessen the tremendous importance of iron ores in the world's economy. Consumption is proceeding more rapidly than new discoveries are being made, and at the accelerating rate of iron consumption over the whole face of the earth iron-ore properties are, as Mr. J. Stephen Jeans, secretary of the British Iron Trade Institute, stated a year or two ago, becoming of such priceless value that every country which has great iron-ore resources is beginning to appreciate their supreme importance.

It is quite within the range of possibilities that this discovery in Cuba will sooner or later lead to the establishment of great iron and steel works in the lower Chesapeake bay at some point where the coking coal of West Virginia and Southwest Virginia can to the best advantage meet these foreign ores. It is altogether probable that the plant of the Maryland Steel Co. at Sparrows Point will be vastly increased in capacity as an outcome of this discovery, and thus we may soon have before us, at the upper and the lower part of the Chesapeake bay, great steel works which shall rank among the foremost of the world. It would be an ideal situation if the cars bringing coke from West Virginia to the Hampton Roads section could return with Cuban ore for the furnaces along the Norfolk & Western and the Chesapeake & Ohio railroads. It is indeed fortunate for

the South that it is not only to have in the Chesapeake bay situation this great iron development, but that, with its vast supplies of ore and coal in the central South, it is to have in that section an iron and steel development which is destined to fulfil the prediction of the late Abram S. Hewitt, that "Alabama will dominate the basic-steel industry of the world." Fortunate, indeed, is the South, and the book of discovery of its resources has not yet been closed.

#### NEW YORK ON THE VERGE.

Anxiety on the part of one bunch of New York "philanthropists," working under the guise of education, to keep the negroes massed in the South, and on the part of another bunch, working under the guise of immigration, to dump a mass of criminals upon the South, is being explained these days. Last Sunday, for instance, 1000 negroes and whites were mixed in a riot in Harlem, in which scores were injured, more or less, and two white men were carried to the hospital mortally injured. About the same time other mobs in four other sections of the city tried to lynch supposed offenders against children, and two men, one of them innocent, were beaten almost to death. The New York *Times*, commenting upon the terrible situation in the metropolis of the country, says:

The "wave of crime," as it is called, does not subside. The police of New York are facing a dangerous situation. The magistrates, who have been acting too slowly and, as Commissioner Bingham thinks, too leniently in cases of criminal assault, will have to bear their share of the blame for the disgrace this city will suffer if a case of lynching occurs.

We have nearly reached that disgrace. In the Yorkville district yesterday an infuriated mob tried to hang, and badly injured, a Russian who was charged with assaulting a little girl. There was a bloody race riot between negroes and whites in Harlem. A mob possessed by the murderous spirit and acting in blind rage can only be subdued by the most vigorous methods.

To the city's recent long list of mysterious crimes must be added this morning the probable murder of an ill-treated woman in the Bronx. The murder on Saturday of the maid-servant, Sophie Heckler, in East 62d street, seems one of the cruellest and less accountable of crimes of violence, and 24 hours of police investigation have not helped to clear the mystery.

The "wave of crime" is, indeed, hardly descriptive of conditions in New York. Ripples of crime would be the better term, compared with the wave which threatens and which is likely to sweep across the city in rapine and death, appalling to civilization, whenever the occasion develops, welding in one purpose and in overwhelming power the elements which, with ever-increasing frequency, give hints of the enormous forces for evil in the population. At one moment a mob, swayed by a yellow journal, is suspending business in the financial district; the next moment a social function of the smart set lets loose pandemonium about some uptown church; again, frenzied women swarm over a schoolhouse under the impression that their children's throats are being cut, and now the mob asserts itself, in comparative dribbles, against shocking offenses apparently beyond the range of the police. The situation ought not to surprise any careful student.

Philanthropy in behalf of negroes in the South has been taken as sincere by many negroes there unable to comprehend its long-range character, and they have been flocking to New York by the thousands to test it. Their influx has been a costly education in the negro problem, and it has only begun; it is still in the kindergarten stage. Contem-



poraneously there has been a wholesale movement upon the metropolis from across the water, with the result that there are herded within the city at least 2,000,000 people, massed in "colonies," alien to everything truly American, the children of poverty and oppression, many of them potentially hostile to any Government, many of them inspired by one motive, "the spoiling of the Egyptians," and most of them behind a mask as impenetrable as that of the negro. It is natural, too, for the city that is the abiding-place of the elements which, without toil or spinning, thrive in levying tribute upon the rest of the country to be the magnet for elements in other parts of the country or in foreign parts who live by loot. Where the carrion is there will the vultures be gathered.

Some day the little mobs in New York will be merged in one great mob that will sweep from the East Side over the whole city, bent upon pillage, and hesitating at no crime to reach its end, unless New York changes its policy of seeking to corral individual criminals and to restrain minor mobs, and, leaving other parts of the country to wrestle with their own problems, devotes its accumulated wealth and its best energies to remedying the defects of its own civilization. New York will not prevent its social conflagration by scattering firebrands all over the country; it will not rid itself of its immigration ills by persuading gullible sections to share them. Its "philanthropists" should pool their issues, should suppress their various "national" organizations, based largely upon the P. T. Barnum conviction that the American people like to pay for the privilege of being fooled, and should get right down to their own business within their own doors, and do it mighty quick.

#### IS ALABAMA AWAKENING?

Is wisdom resuming its sway in Alabama legislation? Its Legislature meets only once in four years. Results of its winter session this year were sufficient to lead the State's well-wishers to a conviction that it had been better for Alabama if its Legislature had a meeting only once in eight years and its next meeting was still four years distant. But it took a recess until midsummer. In the meantime the thunder rolled. Discoveries of effects of the winter's work were made. In the closing days of the summer session came the news from Montgomery that the proposed anti-trust bill would be allowed to die on the calendar; that the workings of the Texas law, upon which the Alabama measure was modeled, had been far from satisfactory; that it is a serious handicap upon commerce and had developed potentialities undreamed of by its advocates. The decision to let the bill die is an excellent one. It might profitably be bettered by occupying an extra session of the Legislature, should one be called, in repealing practically all the legislation of the winter. If such wholesalism be impossible, an extra session would not be in vain if it should succeed in wiping from the statute-books the provision that when any foreign corporation is sued in a State court, and removes such suit from the State court to a federal court, the license of the corporation to do business in the State shall be canceled. The wisdom of a corporation's removing its cause from a court of a State in which it is doing business to a federal court may be seriously questioned. Such conduct is not calculated to make its life comfortable in the State. Yet the State

in seeking to limit the power of anybody, whether corporation or individual, to exercise a constitutional right, even though it be mistaken in doing so, is smoothing the way for the suppression of its own constitutional rights.

#### HOW TO MAKE MONEY BY ADVERTISING MUNICIPAL SECURITIES AND CONSTRUCTION WORK.

Mr. O. P. Jones, Recorder of the city of Tulsa, I. T., in a letter to the MANUFACTURERS' RECORD referring to the fact that the city officials only received one bid, and that at par, which was rejected, for \$55,000 school and sewer bonds, writes:

We believe that the lack of competition was due to the fact that the proposed sale was not advertised, and the Council have authorized me to advertise for bids, to be opened August 19. Therefore I enclose a copy of an advertisement, which you will please insert in the next issue of the MANUFACTURERS' RECORD.

This tells the whole story. The failure to properly advertise the bonds resulted in only one bid, and that at par, causing a delay in the sale of the bonds, and thus a delay in carrying out the work for which they were issued. Some officials make the mistake of not properly advertising municipal securities, and likewise not advertising in the best mediums for construction work where bids are desired from the contractors of all sections. The result in both cases is a loss many times as great as the cost of the advertising. The few dollars saved by not properly advertising are very expensive dollars. Some weeks ago a leading Southern city rejected all bids for certain construction work and decided to advertise more broadly. When the second bids were received there was a saving of \$40,000 in the cost of the work.

It is hardly necessary to say that the moral is: Advertise in the MANUFACTURERS' RECORD.

#### STURDY SOUTHERN BOYS.

In the July Bulletin of the Mississippi Agricultural and Mechanical College attention is directed to a matter which is not considered as it should be by the people of the South. The Bulletin states that students in the freshman and preparatory years work on the farm, in the garden and in the shops of the institution; that those who take the agricultural course are required to work either on the farm, in the garden, in the experiment station or on the campus, and that those who take the engineering course or the textile course must work in the shops. For shop work there is no compensation, but other work is paid for at the rate of eight cents an hour. Moreover, to assist in meeting expenses, the agricultural students can labor from six hours to fifteen hours a week, and in that way quite a number of them have brought down their total expenses to an average of \$100 for the session. This arrangement for pecuniary assistance differs, it is pointed out, from the old manual-labor-school idea, in that the important matter at the manual-labor school was to do enough work to meet all expenses, the formal education being a secondary question. But, it is added:

The boy who labors most of his time is physically too tired to accomplish much in his studies, whereas moderate labor facilitates study. It is desirable that this feature should be understood in connection with the college. It must not be thought that a boy can work his way through by his labor and also get a first-class education. It is impossible to do both. He could not accomplish both if he had a school at his very door. A

student here has many advantages; he not only gets his tuition free, but has an opportunity to work and pay for part of his board by his own labor. At home he would have to incur the expense of board and clothing—an expense unavoidable in attending school under any conditions.

Here is a sidelight upon a situation which the MANUFACTURERS' RECORD has commended again and again, revealing the magnificent spirit of Southern boys, determined to prepare themselves against all odds for participation in the material development of their section. The work that they do to help meet their expenses at college can do them no harm if it is kept within certain limits. But it is a fact that it is a handicap for a youth of right ambition to be obliged to devote a major portion of his time to making a living while preparing for his real career. The difficulty may be overcome by the establishment by large-hearted Southerners of scholarships in the agricultural and mechanical colleges sufficiently large to permit the holder of the scholarship to do only the work required as a part of his training. The scholarships should not be outright ones. They should be granted under a pledge from the student that he will repay them to the college from the first moneys he earns after graduation. In that way the scholarships will be self-perpetuating for the benefit of successive generations of students. Establishment of such scholarships should be supplemented by a determination on the part of Southern men of means to give to qualified graduates of the colleges opportunities to make use of their qualifications in the South.

#### GOVERNMENT BY COMMISSION.

Here and there in the country intelligence is awakening to the menace of government by commission. Referring to a legislative proposition to leave in the hands of the State Railroad Commissioners the matter of running freight trains and excursions on Sunday, and contending that such power should not be lodged in the hands of any set of men, the *Advertiser* of Montgomery, Ala., says:

It would enable the Railroad Commission and the administration, of which the Railroad Commission is a part, to coerce any railroad company or any community into doing, or suffering to be done, almost anything.

An advance even beyond such power is made in a recently-enacted insurance law in Texas, which actually gives the Commissioner of Insurance authority to suspend the requirements of the law, according to the *Dallas News*, which says:

The law as we have it in Texas, if we should happen to get in men willing to take advantage of it, would be a "campaign-fund raiser" and "machine builder" that has hardly been equaled in this country. If lobbying is so very dangerous, and the corporations, including the insurance companies, have found it so easy to buy a majority of members of the Legislature or balances of power in both houses, in order to have bills defeated, then how much easier will it be for such corporations to buy one ambitious and weak-kneed man, who, as commissioner, has power to set the law aside at will, to serve and please them? Yet we have the same Legislature or administration that raised its voice to high heaven against the power of such companies to buy Legislatures and control legislation ready to enlarge its own prerogative far beyond democratic and even constitutional limits by reducing the number of men to be corrupted from 100 to 1. If this is not a dangerous and suspicious concentration of power in a few hands, then there is no such thing possible.

The dangers here suggested are by no means impossibilities. They are, indeed, probabilities inseparable from any form of government except that in which individuals holding office with

executive, administrative or legislative duties are directly responsible to the people. To be sure, the tendency of the day would relieve the people of all responsibility in government, except the responsibility of paying the bills, and among the many phases of this tendency are city charters placing such important bodies as school boards beyond touch of the voters, the substitution of municipal commissions for periodically-elected mayors and councilmen, and the relinquishing by national and State legislatures and executives of their powers and their duties to commissions of one kind and another, some of which enjoy the combination in themselves of legislative, executive and judicial powers abhorrent to the spirit of American government. Of course there are dangers.

It is natural for men entrusted with unusual political power to seek to add to that power consciously. Each accretion of power to them reduces by just so much the ability of the people to deal with them and to restrain them. Lack of restraint opens the way for them to injure the people, either in an exercise of arbitrariness or whim or in the enjoyment of graft of the most pronounced sort. They may use their office either as an almost invincible force in politics or as a means of acquiring money corruptly. If a State commission, they may compel the unwilling support at the polls of the candidates for public office, playing a shell game of democracy upon the people, and if a Federal commission, may bring an influence to bear in transportation, commerce, industry and finance upon individuals, communities, States or sections for the perpetuation in office of an administration to which the commission owes its own appointment and its retention of office. In fact, the commission, either permanent or temporary, or the administrative bureau surpasses as a political agency the most exquisite "fat-frying" devices of the nineteenth century and the most strenuous corporation-blackmailing schemes of the twentieth century. It is as free to threaten and actually to injure the individual as it is to coerce the corporation, and is in an unrivalled position to infect all government in the country with corruption; for it is much easier to buy the dominant element in a commission under no direct responsibility to the people or a single individual at the head of a bureau of almost unlimited prerogative than to corrupt an influential majority in a legislative body. There has been enough bargain and sale of legislation and enough bartering of executive officers, particularly those concerned with finance. The remedy is not to be had in resorting to supra-constitutional devices, in permitting the proper authorities to evade their responsibilities by way of the institution of commissions for this or for that. Such resort only weakens the conscience of the people, who may come to be ignorant of the fact that they are being robbed, simply because they feel no man's hand actually in their pockets. Weakening of the public conscience as to governmental affairs opens the door for a flood of ills.

Protection against the ills lies in participation of the people in government to the fullest extent. Self-government with the aid of servants chosen at sufficiently frequent intervals to prevent them from acquiring notions of mastership may have its evils, but they are as nothing compared with the results of a people permitting itself to

be governed under the commission system. That is only a thinly-veiled absolutism.

#### DIAMONDS IN ARKANSAS.

Diamonds have been found on a tract of land near Murfreesboro, in Pike county, Arkansas. They occur in a deposit of blue clay similar to that of the Kimberly field in South Africa. Since the original discovery some months ago there has been some surface work in the clay by Messrs. Charles F. Stiff, Albert D. Cohn, S. W. Reyburn of Little Rock and others, and 149 diamonds have been found. The *Arkansas Gazette* of Little Rock, which announced last Sunday the discovery, says that Dr. George F. Kunz, vice-president of Tiffany & Co. of New York, perhaps the leading diamond expert of the country, and Dr. Henry S. Washington of New York, an authority in geology, have visited the tract and have pronounced the diamonds genuine. The diamonds found range in weight from one-sixty-fourth to six and one-quarter carats, and in color from dark brown to canary and blue white. Col. Theodore Hartman of Little Rock is manager of the company which has acquired the tract, but so far there has been practically no panning and no machinery beyond core drills to verify the dimensions of the deposit of blue diamond-bearing clay.

#### BRISTOL.

According to the report of General Manager J. D. Peters of the Board of Trade of Bristol, Tenn.-Va., more than \$5,000,000 have been spent in that district during the past fiscal year in opening mines, building coke ovens, constructing railways, developing timber properties and extending and enlarging established plants. The business of the city has amounted to \$31,299,200, of which \$8,731,640 represent iron, coal, coke and lumber, \$9,460,000 manufacturing, \$7,652,000 jobbing and \$4,985,560 retail merchandising and hotel. Bank deposits increased from \$1,947,720 to \$2,349,289, and the clearings from \$30,406,717 to \$45,535,470.

#### FOUR CEMENT PLANTS.

The MANUFACTURERS' RECORD is advised that the North American Portland Cement Co., which was organized last year with a capital stock of \$10,000,000, has since its organization been engaged in making borings in search of cement work throughout the entire Atlantic seaboard, the West and middle South, and that its plans have been perfected for the location of four extensive Portland-cement plants in different parts of the country as a result of this work. It is said that these plants are expected to be ready for operation early next summer.

#### States vs. Railroads.

*Editor Manufacturers' Record:*

As a worker in the ranks of Southern progressionists for 28 years I ask your great journal to give publicity to these views on the States vs. Railroads. I have not consulted with any railroad man, nor do I assume to represent anyone but myself. It is doubtless true that there is much that calls for radical change in the management of some of the railroads, but it is equally true that without an improved—nay, a more complete—system of railroad service the South's great march of progress must at least be arrested to a most alarming degree.

Every Southern interest is more or less dependent upon transportation, while expansions and enlargements in every way are urgently needed if we are to reach that stage of development to which all good Southerners aspire. Would it be wise to impair one organ of the body to take revenge on other offending members? We may wear ourselves out in abuse of

railroads; we may exercise whatever right of legislation we possess; we may limit their privileges and curtail their earning capacity as far as States' rights or federal rights admit of, but the so-called victory cannot fail to react on ourselves with baneful results.

Both Governor Glenn of North Carolina and Governor Swanson of Virginia have done their plain duty in enforcing an enacted law, but Governor Hughes of New York soared high above them both when he exercised his right of veto to prevent future trouble. Even if the Supreme Court should decide that the States had a right to regulate rates, surely the density or paucity of the population should be considered. A two-cent rate may sustain a railroad in New York and yet break it in the South. In very truth it is time to call a halt in suicidal Southern legislation, which puts an effectual stop to Southern railroad building and improved railroad service. It is born of prejudice and unreason rather than of mature deliberation.

It is folly to expect capitalists to even consider investments of any kind in a territory where adverse legislation may at any time prevent the earning of dividends.

The assembling of a Legislature will be a signal to stop work.

If these conditions continue, every existent enterprise will have to content itself with such facilities as it now has, minus frequent trains and up-to-date service, with no hope of improvement as long as fear of drastic measures holds all in suspense.

Foreign immigration to the South has become an absolute necessity, but any attempt to secure it without the co-operation of the railroads would be as futile as a bombardment of Fortress Monroe with black-eyed peas.

The two sides should come together on some equitable basis, keep out of court, avoid unwise legislation, adjust their respective differences, work to one common end—i. e., progression—fight for instead of against each other, and all will yet be well. Continue the present disastrous policy and both sides will suffer, while capital will turn a listless ear to every prospectus emanating from threatened districts. Such a fight is more far-reaching than the contest between capital and labor.

Let the Southern Railway lose its franchise in Alabama as ordered last week, and every wheel of industry in that great State will stop; the fires of every furnace will be put out, as will be also the coke ovens; every miner will be idle, but an army of protestants will crowd every road with vehicles on their way to Montgomery and the Governor will find himself less popular than when he was elected.

North Carolina and Alabama in particular and the whole South in general have more undeveloped wealth than has ever yet seen the light of day. But, to say the least, it must remain hidden until the public and the railroads get together and agree upon some compromise, repeal unjust laws and enact wise ones in their stead that will admit of both prospering.

Here in Norfolk all are rejoicing about the early completion of the great Virginian Railway, built by H. H. Rogers, the plans and scope of which, while still a mystery in part, have enthused the energetic and moved enterprises. Does any sane man believe that such a railroad would have ever been started if such adverse legislation had preceded it?

The South that overcame the monumental difficulties of the Civil War and reconstruction will rise superior to the present disastrous prospect, but her progress must be hampered and delayed unless a happy solution of the present situation is reached.

WALTER SHARP.  
Norfolk, Va.

## Atlanta's New \$1,000,000 Postoffice and Courthouse

By HUNLEY ABBOTT.

[Written for the Manufacturers' Record.]

In the fall of 1906 Congress voted an appropriation of \$1,000,000 to build a new postoffice and courthouse for Atlanta, Ga. This is in recognition of the growing importance of Atlanta as a Southern center and the remarkable increase in her postal receipts. This building will be one of the handsomest federal buildings ever erected in the South, and will cover a city block. The site lies between Forsyth, Walton, Fairlie and Poplar streets. The building consists of a basement, five stories and an attic, and contains about 2,500,000 cubic feet of space. It is almost square in plan, with a central court, open in the rear, above the first floor. The main entrance will be on Forsyth street, with side entrances on Walton and Poplar streets and a wagon driveway in the rear.

Architecturally the building will be very pleasing. The style is Italian Renaissance, and was especially designed for the use of white marble. The entire exterior will consist of this material, and many broad-plane surfaces have been provided to exhibit its beautiful vein. The roof will be of green Roman tile and the exterior fixtures of green bronze, forming a

street. This necessitates the placing of a reinforced concrete retaining wall at the curb line and the cutting of large openings in the basement wall. Above these openings the wall is carried by reinforced concrete lintels; below, the footings run continuous and are heavily reinforced.

The basement will be used principally for the location of mechanical plant and for storage. It will also contain swing-rooms for clerks, carriers and special delivery boys, with toilet and shower bath attached. The floors will be of cement, and the partitions nine-inch brick walls. The boiler-room will be 38x73 feet, and the engine-room 32x80 feet. The steam and electrical plant has not been designed as yet, but provision has been made for two 75-kilowatt and two 50-kilowatt generators and four 100-horse-power water-tube boilers supplied with a natural draft by two three-foot stacks.

The plumbing and drainage empty into a combined system with two 10-inch and one 8-inch connections to street sewers. All piping below ground is extra heavy cast iron, and all above galvanized wrought-iron. Roof drainage is carried by two



NEW POSTOFFICE BUILDING AT ATLANTA.

pleasing color effect against the background of white marble.

In construction the building will be entirely fireproof. All window and door frames will be of sheet metal, little wood being used anywhere. On the interior the construction has been exposed and treated in a decorative way.

The contract for the foundations up to three feet seven and one-half inches above the first floor has been kept separate from that of the rest of the building, and has already been let to Mr. Ambrose Stannard of New York for the sum of \$46,000. Work on this part of the building is moving along without interruption, and the contractor expects to complete his work about September 1. In the meantime plans for the rest of the building have been in preparation in the office of the supervising architect, Mr. James K. Taylor, and are at present nearing completion. It is probable that bids will be called for some time in the early fall.

The footings for exterior walls are about 14 feet below the curb. They are made of stone concrete, and measure 6 feet 10 inches wide and 3 feet thick. On these rest the basement walls, which are also of concrete 4 feet thick, with granite facing above grade and wherever exposed to view. There is an areaway running the whole length of the Poplar-street side, and a smaller one in the rear on Fairlie street. To provide sufficient light in the basement sidewalk lights will be required for the full length of the building on Walton

eight-inch and six six-inch downspouts connected in the attic to 24 roof outlets. All soil lines are end vented, and fixtures provided with non-siphoning traps without vents. Vitreous porcelain lavatories will be placed in each office room not provided with a toilet. There are 70 water-closets and 120 lavatories in the building. Cold water is supplied through two four-inch service pipes, which feed four three-inch fire risers with four lines of two-inch hose on each floor. Plumbing fixtures are supplied from an overhead cold-water distributing main fed by two three-inch risers. Flushing valves will be used on all closets and urinals. Hot water is supplied by an overhead main, fed by two two-inch risers. All branch mains extend to the basement, and are connected through a circulating main to the hot-water heater. The building is piped and wired for 2300 gas and electric lights. Gas is supplied through two four-inch service pipes. All rooms are provided with vent flues leading to chambers in the attic, which discharge through openings over elevator pent-houses. Fresh air is supplied to the building by two six-foot fans, one serving the first floor, and the other the floors above. The fans force air through a tempering coil, air purifier and heating coil. Tempering coils are designed to heat the air to 45 degrees and heating coils to 75 degrees. Each fan delivers 23,000 cubic feet of air per minute, and is driven by a 10-horse-power motor. Engine and boiler rooms will be ventilated by a five-foot ex-



hauser driven by a five-horse-power motor.

The public lobby on the first floor runs around three sides of the building just outside the main walls. The floor will be marble tile with a marble wainscot and vaulted ceiling. Between the lobby and the workroom are arched openings with green bronze screens, nests of boxes, mail windows, etc. The whole effect of this lobby will be very rich. On either side of the building and just off the lobby run the main stairways, with an elevator in the central opening. The stairs will have marble treads, risers and wainscoting, and the elevators will have a highly ornamented green bronze grille. In the middle of the first floor, and occupying about half of the total area, is the workroom, where all mail matter comes in and goes out, is sorted, distributed or sent out for delivery. The whole rear of this room can be opened up by raising sliding doors, and these open out on the mailing platform. Mail wagons drive up under a covered driveway and receive or deliver their load from this platform. That part of the workroom under the court is covered by a metal roof with large skylights. The finish of this room will be very plain, glass and iron being the two materials most in evidence.

The postmaster's suite is at the rear end of the Walton-street lobby, with the registry division occupying a similar position on the other side of the building. All partitions on the first floor will be six-inch terra-cotta, while four-inch terra-cotta is used for partitions on all floors above. All outside walls will be furred with two inches of terra-cotta.

In the rear, over a small part of the first floor and 10 feet 6 inches above it, is a mezzanine floor to accommodate the clerical force of the postmaster and the registry division.

Above the first floor the building has the shape of a hollow square with one side cut away. Through the center of this area, on the second floor, runs a corridor with marble floor and wainscot. On either side of this corridor are offices with windows opening either on the street or the inner court. On this floor will be accommodated the postoffice inspector, civil service, internal revenue, supervisor of customs, railway mail service, etc. There are a number of concrete vaults with double steel doors throughout the building for the storage of valuable documents.

The entire front of the third floor is taken up by the Court of Appeals and the Circuit Court. These two rooms are two stories high, finished in mahogany, with deep paneling extending to the ceiling, which is richly ornamented in plaster. Connecting with these rooms on either side of the building are suites for the judges, including a large library. These rooms are also handsomely furnished in mahogany. On this floor will be rooms for witnesses, clerks, lawyers, juries, marshals, etc. On the fourth floor will be offices for the United States Commissioner, referee in bankruptcy, pension agent, secret service and a large fileroom, while the fifth floor will have a large civil service examination room, a room for court records and a number of as yet unassigned offices. Over certain parts of the fifth floor is an attic space that may be used for miscellaneous storage.

Structurally this building will be as modern as it is in other respects. All exterior walls are self-supporting, and vary from 3 feet 2 inches thick at the first floor to 1 foot 2 inches thick at the fifth. The court walls are 18 inches thick from top to bottom, and are carried at the second floor by two lines of 24-inch beams. Interior columns are mostly of plate and angle section. They rest on concrete pedestals, and are protected from fire by

three inches of terra-cotta. There are 96 of them in all. The floor construction consists of steel girders and beams, with a three-and-one-half-inch stone concrete slab reinforced with mesh metal of approved pattern. This concrete extends completely around all steel beams, furnishing a thorough fire protection. There will

be a terra-cotta alternative for this floor construction.

The roof is framed with steel beams, with a two-and-one-half-inch reinforced concrete slab.

Every attempt has been made to make the building thoroughly modern in every respect.

## RECENT FACTS IN THE MID-CONTINENT OIL FIELD

[Special Correspondence Manufacturers' Record.]

Tulsa, I. T., August 1.

The mid-continent oil and gas field embraces all that part of Kansas in which oil and gas has been developed, together with Oklahoma and the Indian Territories. The fields of Kansas, however, have become an old story, and now when the mid-continent field is spoken of it is generally understood to mean only certain areas in Oklahoma and Indian Territories, embracing in its scope the towns of Bartlesville, Tulsa, Ocmulgee, Sapulpa, Morris, Muskogee, Cleveland and several other minor points. It is with this particular section that this story will deal.

A suspicion of oil and gas in the Indian Territory had long existed, but the pioneer oil movement had its inception at Chelsea, in the Cherokee Nation, in 1886. Operation, however, hung fire until 1891, at which time an enterprising individual sunk a shallow well a few miles west of Chelsea, where he found a good showing of oil. Interesting other parties with him, he organized the United States Oil & Gas Co. A number of wells were drilled, all of them being splendid producers, but, by reason of the absence of market facilities, operations were suspended, and it was not until practical oil men from Pennsylvania were interested that anything looking to permanent and profitable development was accomplished. Upon the accession of this new blood the Cherokee Oil & Gas Co. was formed and took over the holdings of the United States Company and became the lessees of the country as far north as Coody's Bluffs. The passage of the Curtis Act of 1896 caused trouble, and when the matter was arranged the company held possession of six sections upon which wells had been sunk. Later six additional sections were acquired under the development regulation.

In 1893 Michael Cudahy secured a lease upon 200,000 acres around Bartlesville, in the Cherokee Nation. A test well showed oil in paying quantities. Mr. Cudahy found himself up against the Interior Department in the same shape that the Cherokee people had experienced, and when the dispute was settled that gentleman was left in possession of only 640 acres, Section 12-26-12. Upon this section the well had been located. Later the townsite of Bartlesville was located on this section, which was conducive to further trouble. The dispute being finally settled, the Cudahy Company drilled 80 wells. From these Bartlesville was developed into a great oil center. With these wells drilling ceased in the Cherokee Nation until May, 1904, owing to the practically prohibitory regulations of the Interior Department.

Early in 1900 a test hole was sunk just north of Red Fork, in the Creek Nation, and made a fine showing of oil, but the restrictions of the Interior Department acted as a bar, and several years intervened before any active work was begun. Up to 1904 much prospecting was done, with various results, all of them more or less encouraging.

The oil and gas district of Oklahoma Territory is confined, so far as present developments show, to the Osage Reservation, which, although located in that Territory, has been held as a separate subdivision. The drilling of the first well at

Cleveland in July, 1904, induced a general exodus of all operators who had been held in check for many months in the Indian Territory. This little city seemed to be located immediately over an oil pool, and in the shortest possible time wells were drilled upon perhaps every other town lot, all of them proving profitable producers. Cleveland became a great oil center, but the drain on the pool proved to be quickly exhaustive, the excitement soon subsided, and today Cleveland is not ranked among the heavy oil-producing centers. She is, however, yet a very comfortable producer, and recent development indicates that she may at no distant day again take rank as an oil center.

Touching the development of oil and gas in the two Territories, the Osage Nation was first prospected, next the Cherokee Nation along the Osage border, then the narrow belt bordering the Verdigris river, followed by the Creek Nation, the work resulting within four years in the sinking of 7000 wells, with a daily production of 120,000 barrels.

Up to 18 months ago the Glenn pool was unknown. In December, 1905, Robert Galbreath and Frank Chesley, two oil operators who had up to that time met with no decided success and were distressingly short of the wherewithal, started in to sink a test hole on the Ida E. Glenn farm, located in Section 10-17-12, 15 miles south of Tulsa. The section was known as "a rank wildcat." Oil speculators were shy of the region and capitalists held aloof. It is said that at one time Chesley offered to sell one-half of all his interest for \$300 to secure money with which to prosecute drilling, but found no buyer. Operations were discontinued. The money at last being secured through the putting up of other collateral, drilling was resumed, and within 75 feet of where it had been suspended oil materialized, flowing 75 barrels per day regularly. The first well gave the two men credit, and another well was sunk 300 feet away which flowed 800 barrels. For several months these two wells put into the tanks 700 barrels per day, and from them was developed the famous Glenn pool, known today as the greatest oil-producing section, of equal area, in the world. The area of the pool covers 7300 acres, but steadily the same is being extended by indefatigable prospectors, and very extensive additions are confidently figured by experts. The income of Calbreath and Chesley is today figured approximately at \$5000 a day, while it is currently reported that they have refused a lump offer of \$2,000,000 for their oil and gas holdings.

Much money has been lost and many fortunes have been gained through oil and gas operations, but it can safely be figured that expert oil men have generally been successful beyond their most sanguine expectations. The prices of leases vary from merely the nominal to \$100,000 for an 80-acre tract.

While the Glenn pool is looked upon as the biggest thing yet developed in the mid-continent field, yet when comparisons are made several other districts must be looked upon most favorably. For instance, the Weber pool, near Bartlesville, while not near so large, turned out a number of

wells that produced 900 to 1200 barrels per day, and in the Copan pool several wells turned out 1500 barrels each, while in the Osage district, covering an average of six miles north and south and 10 miles east and west, many wells turned out naturally 2000 barrels daily, some of them flowing as high as 3000 barrels during the first 24 hours after a shot. Many of them started in with from 500 to 800 barrels each.

The productions in the northern districts reached their acme in August, 1906, as shown by the following table of daily output:

	Barrels.
Osage Reservation.....	15,000
Cherokee Shallow Sand.....	25,000
Creek Nation.....	20,000
Cleveland.....	2,500
Kansas.....	8,000
Total.....	115,500

In January, 1907, counting 31 days, one oil and gas company (the Prairie) took 2,325,000 barrels from the whole field, or 75,000 barrels per day. Touching operations for June in the Glenn pool, from official statistics published in the *Oil Investors' Journal* for July, the following summary is made up:

Up to June 30 the official roster shows 519 producing wells, credited with a gross production of 125,975 barrels, or an average of 243 barrels to the well. In May the production was accredited at 123,900 barrels, thus showing an increase for June of 2075 barrels. The production of wells up to June is put at 32,000 barrels, while the runs from the field for the month are estimated at 87,000 barrels per day, divided as follows:

Prairie Oil & Gas Co., 39,000 barrels; Gulf Pipe Line Co., 17,000 barrels; the Texas Company, 9000 barrels; into producers' storage, 22,000 barrels. The Prairie Company's stocks at Jenks were increased about 660,000 barrels during the month, giving that company approximately 2,975,000 barrels in steel storage in the Glenn district. The Gulf Pipe Line Co. added about 410,000 barrels to its stock in the field, making the gross amount held by this company at its Hamilton and Tiger farms approximately 1,210,168 barrels. The Texas Company took care of 9000 barrels per day from its leases in Section 8, increasing its stock from about 634,000 barrels to approximately 904,000. This company found it necessary to build a 100,000-barrel reservoir to take care of its surplus oil. New production obtained in June more than overcame the decrease in the old wells.

With the Glenn pool capable of making 125,000 barrels a day and a new field that looks to be a good one coming in at Morris, a continuation of its present production in Indian Territory seems assured. The older districts are holding up and their output could be largely increased if it became necessary. The Cherokee deep sand is credited with a production of 35,000 barrels, the Cherokee shallow sand with 30,000 barrels, the Osage Reservation with 16,000 barrels and the Oklahoma district with 25,000 barrels, or a total of 83,500 barrels. Putting the entire Creek Nation in at 125,000 barrels gives a gross possible output in the present stage of development of 208,500 barrels. Kansas has about 6500 barrels per day, which, added to the production of the Territory, makes the gross possible production 225,000 barrels. When the new production in the Glenn field no longer overcomes the natural decline in the older wells it will work quite a change in the foregoing figures, but at this time there is no doubt that the mid-continent region is capable of producing 225,000 barrels a day.

A detailed statement of all steel storage in the Glenn field shows that during the month of June the pipe lines completed 30 tanks, with a combined capacity of

1,242,500 barrels, while producers completed nine tanks, with a capacity of 435,000 barrels, making a total of 39 tanks completed, providing storage room for 1,677,500 barrels of oil. This is at the rate of 55,916 barrels a day as compared with 41,290 barrels per day in May, 50,000 barrels a day in April and 36,610 barrels a day in March. The total number of steel tanks completed to July 1 in the Glenn field is 174, of which the pipe lines have 130, with a combined capacity of 5,065,000 barrels, and producers have 44, with a capacity of 1,850,000 barrels, giving the gross capacity of 6,915,000 barrels. The quantity of Glenn crude in steel storage on the field is put at 6,515,000 barrels. The capacity of earthen storage completed in the field is estimated at 2,069,000 barrels, and the quantity of oil in this class of tankage is put at 1,500,000 barrels. The gross capacity of steel and earthen storage in the Glenn field appears from the foregoing figures to be 8,984,000 barrels, in which there is estimated to be 8,015,000 barrels of oil. Adding 235,000 barrels as the amount of oil in wooden settling tanks, it seems reasonably certain that there is today 8,250,000 barrels of Glenn crude in storage on the field. Approximately 2,250,000 barrels have been shipped North by the Prairie Oil & Gas Co., and shipped by that company and the pipe-line company to Texas, making a grand total of 10,500,000 barrels of Glenn crude accounted for today.

Railroad shipments of Glenn crude to Texas in June average about 16,000 barrels a day, of which the Prairie Oil & Gas Co. loaded 9800 barrels per day and the Gulf Pipe Line Co. the remainder. About 8000 barrels went from the Prairie rack at Jenks, on the Midland Valley, to Security at Chaison, south of Beaumont. The Prairie Company also shipped about 1800 barrels a day from Kiefer, on the Frisco, to the Corsicana Refining Co. at Corsicana. The Gulf Pipe Line Co. shipped about 3333 barrels a day from Kiefer to the Gulf Refinery at Port Arthur.

Outside of the Glenn pool there are several other seemingly profitable pools in course of development.

So far the Muskogee district has eight producing wells, two of them recently opened. These wells are now turning out an average of 200 barrels each per day. In tankage this district has 16 100-barrel wood and two 50-barrel steel tanks.

The latest field opened is located two and one-half miles south of Morris and within a few miles of Okmulgee. At present five wells are in operation, with a daily output of 4000 barrels. The field has 15 1600-barrel and nine 250-barrel wooden tanks, together with one 3500-barrel steel tank and another of the same capacity under construction. The earthen storage will provide for about 10,000 barrels. From Morris is being shipped four cars of oil daily. The first well was brought in April 23, 1907, and the latest one in the latter part of May. This well is now turning out 2200 barrels per day.

The Cleveland district has 192 producing wells, with a daily output of 6000 barrels, and in the field are 275 wooden tanks of 250 barrels capacity each, 25 1600-barrel, 28 steel tanks of 35,000 barrels each and one of 16,000, together with earthen storage for 250,000 barrels. One hundred and twenty-five barrels are shipped in railway tanks daily, the balance being piped out. The present production of 6000 barrels per day is as against 2500 in August, 1906. Cleveland is the headquarters and receiving and distributing point for Oklahoma oil field.

Within the Cherokee Nation are embraced the following districts: Bartlesville, Shallow Sand, Skiatook and the Osage Reservation, the latter being an in-

dependent division in Oklahoma, and from these are produced 90,000 barrels of oil daily. The writer is not in possession of data giving the number of wells, but the storage capacity of the district consists of 929 tanks, with an aggregate capacity of 32,515,000 barrels. Bartlesville is the distributing and receiving point for all the districts save a small portion of the Osage Reservation, which is located at Jenks.

Tulsa is the headquarters for the Creek Nation production, with Sapulpa, somewhat nearer the Glenn Pool, as a strong second. The former has three pine lines—the Prairie, Gulf and Texas—the latter to be completed next fall. She also has five railroads—the Frisco, Chicago, Rock Island & Pacific, the Atchison, Topeka & Santa Fe, the Missouri, Kansas & Texas and the Midland Valley.

Okmulgee and Morris are headquarters for the Morris field and the oil section of the lower Creeks, while the oil prospectors and operators in the Seminole Nation gather at Wewoka.

At present the Choctaw Nation is looked upon as "wildcat," and no gathering point has yet been settled upon.

Kiefer, 18 miles southwest of Tulsa, the most wonderful oil camp in the world, is the distributing and receiving point for the Glenn pool, on the Frisco. This road at this place has 16 side-tracks, and its business amounts to \$150,000 per month.

Jenks, on the Missouri, Kansas & Texas Railroad, is receiving and distributing point for the Glenn Pool on the east side, and is also the headquarters and pumping station of the Prairie (Standard Oil) Company. There are several other very promising oil locations in the Indian Territory, among them Coweta, Atoka, Scullen, the junction point of the Frisco for Sulphur and the Platte National Park, Francis and Madill. Not enough development has yet been made at either of these places to give any assurance of the outcome, although it is possible that some profitable pools will be uncovered.

With reference to natural gas, no reliable data is at hand by which the daily output or the possibilities of the Glenn field can be estimated. The Mitchell, Calbreath and Chesley interests own four wells, two of them with a capacity of 6,000,000 cubic feet each daily, one equal to 5,000,000 feet and the other one 7,000,000 feet—18,000,000 in all. The Prairie Oil & Gas Co. and several other corporations are also heavy owners of gas wells scattered throughout the field, and it would possibly be entirely safe to say that the area covered by the Glenn Pool would be good for 150,000,000 cubic feet of gas daily. The output of all these wells is being piped as rapidly as possible throughout the length and breadth of both Territories, and it is offered at both Tulsa, Sapulpa and other cities to manufacturers at merely nominal rates.

In the Morris field there are at present nine wells with an aggregate capacity of 5,000,000 cubic feet daily. There are also 20 other wells in course of drilling, and it is possible that within 30 days the Morris district may also be good for 100,000,000 feet daily. Morris and Okmulgee are also anxious for manufacturers and will give satisfactory rates on gas.

In the Muskogee field only one gas well has been brought in. It is situated nine miles southwest of Muskogee, near Creola. At this date its daily capacity has not been determined. Suffice to say it is a top-notch producer.

In the Cleveland district there are 12 wells with an estimated total capacity of 100,000,000 cubic feet per day. Bartlesville is also a great gas center, and it is possible that her output is equal to that of any other district.

It is estimated that the mid-continent field is good for an output of 1,000,000,000 cubic feet of gas per day, but naturally this estimate is based upon the early pressure of the wells, and as that becomes lighter the output must materially decrease.

One thing, however, is certain—the mid-continent gas fields are the most prolific producers of any in the United States, and are likely to hold out longer than those of any of the fields discovered heretofore.

F. M. P.

## THE NEW METHOD FOR SAVINGS BANKING.

By MAYOR TOM L. JOHNSON,

President the Depositors' Savings & Trust Co. of Cleveland, Ohio.

[Written for the Manufacturers' Record.]

The bank money order plan adopted by the Depositors' Savings & Trust Co. of Cleveland for doing its savings banking is a device that combines old functions heretofore performed by separate banking

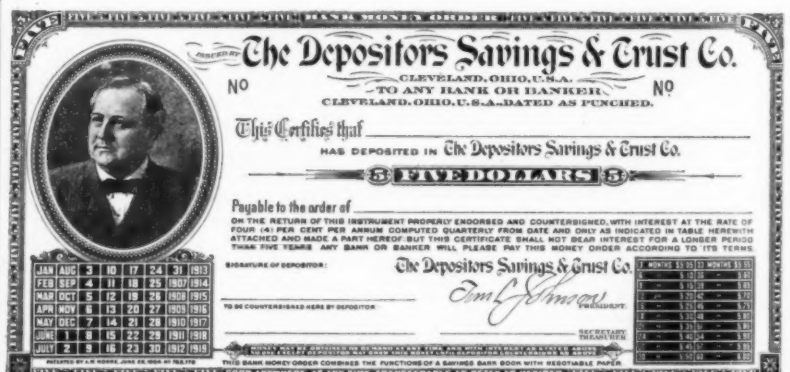
4. A certified personal check of the depositor.
5. A money order for round sums.
6. A traveler's check.
7. A New York or Chicago draft.



paper. The result of this combination is a new banking device that has been called a bank money order. This new method does away with savings bank pass books, which have always been recognized as clumsy and unsafe for both depositor and bank, figures the interest five years in

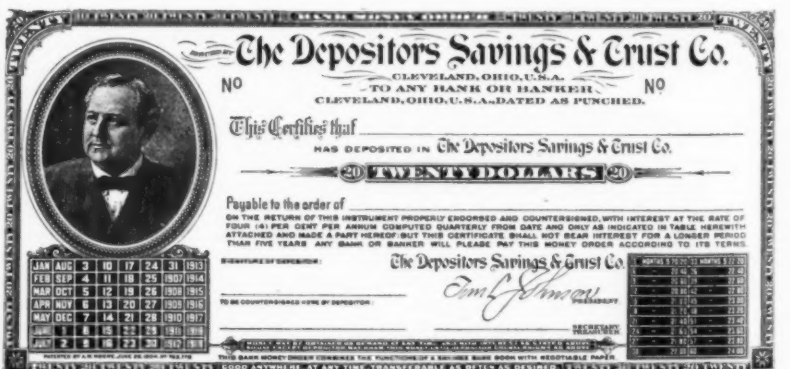
8. An evidence of savings deposit without the use of a pass book.
9. A self-identifying instrument.

An examination of the foregoing list shows that there is not one new practice in any of the features. Each function is now exercised by banks, express compa-



advance, thus doing away with all book-keeping in behalf of the depositor, and gives the savings depositor the advantage of using his savings account without being compelled to go to the bank and withdraw in actual money any part of his accumulations for use.

nies and the postoffice. Some two or three of these functions are now performed by one instrument, but nowhere in the banking world except by this new bank money order of the Depositors' Savings & Trust Co. are all of these things combined into one device. This combination creates a



This bank money order combines the following features all in one instrument:

1. Certificate of deposit.
2. An interest-bearing certificate.
3. A personal check of the depositor.

new banking "tool" which is at once most useful in its application to the necessities of depositors in savings banks.

There are two requisites that must go before anything else in attracting savings



deposits; first, ease in withdrawing money from the depository, and second, ease in making the deposit. This order may seem to be inverted, but, after all, the ease of withdrawal is the first consideration, and this ease includes the stability of the banking institution and its readiness to pay its depositors, and the second consideration is that the depositor be allowed to withdraw his money at will and with the least possible inconvenience and expense to himself. The stability of any banking institution may be judged by the result of proper investigation, but the ease of withdrawal depends entirely upon the rules of an institution or the methods it employs. The bank money order plan makes it easy for the depositor to obtain his money when desired, and this very fact will not only induce him to adopt this plan, but will impel him to leave his money on deposit as long as possible. He is not forced to come to the bank for his money, but may convert his bank money order into a personal certified check good for the original sum deposited plus any accrued interest, and use it in his business, the money order coming through the ordinary banking channels as a check to this bank for payment and cancellation.

The second consideration, ease in making the deposit, is at once apparent. Depositors may send their money to the depository and receive their bank money orders by mail. In the short time that the Depositors' Savings Bank & Trust Co. has been using this method of banking deposits have been received from nearly every State in the country. Some of these depositors have tested the usefulness of these money orders by cashing them, but, of course, the great majority retain the certificates for the sake of the interest.

The Depositors' Savings & Trust Co. issues a booklet describing in detail this new method for savings banking, which sets forth at length better than I can in this limited space the advantages of this new and wonderful banking device. I am convinced that this bank money order plan of doing savings banking will result in great convenience to people who desire to save moderate sums.

### IN LOWER KENTUCKY.

#### Plans for Great Developments Along the Cumberland.

[Special Cor. Manufacturers' Record.]  
Corbin, Ky., August 5.

Several million dollars are represented in plans for the development of a vast area of lower Kentucky bordering the upper Cumberland river, now without transportation facilities with the exception of a few steamboat lines which ply that stream at certain seasons of the year. In this area, embracing several hundred square miles, there is a great wealth of natural resources which will be developed on a large scale when present transportation plans are carried out.

The Cumberland River & Nashville Railroad, surveyed last year and designed to extend from this city to Tennessee, promises to become a reality at an early date. Construction work has been started between Tateville, on the Cincinnati Southern, and Monticello, the center of the Wayne county oil fields. The distance between these points is 20 miles, and that part of the line will probably be completed within 10 months. Marked progress has been made in its construction this summer, most of the grade work now being finished.

The Tateville-Monticello line will be a link in the proposed railroad, which will be 100 miles in extent. The survey begins here and extends through sections of Laurel, Whitley, Pulaski, Wayne and Clinton counties into Tennessee, where a connection will be made with Nashville. It does not appear that any of the big systems are

behind this line. Chicago capitalists are financing the project.

The Government has now begun the expenditure of several hundred thousand dollars in the construction of locks and dams 30 miles below Burnside, which is the head of navigation in the Cumberland river. The completion of this work will make navigation possible throughout the year as far as Burnside, and boats will be enabled to ply quite a distance above that point the greater part of the year. Construction forces have been established at the location of the locks and dams, and construction work will proceed as rapidly as possible.

The Somerset (Ky.) Commercial Club, in connection with the Nashville Chamber of Commerce, is boosting a proposed electric railroad to extend from Somerset to the Cumberland river, a distance of about eight miles. This week plans were taken up which will lead to the organization of a company to build the road, and it is believed that Somerset and Nashville capital will carry out the work. The line would give Somerset and contiguous territory direct connection with river transportation, and much traffic would be turned in that direction.

The Cumberland Falls Water-Power Syndicate is proposing to establish an immense power plant at the falls of the Cumberland river in Whitley county. Much discussion has been occasioned by this project, which bids fair to materialize within the near future. The company, which is composed of New York capitalists, proposes to generate 20,000 horse-power and supply electricity to surrounding points for manufacturing purposes. A large aluminum reduction plant is also planned for some point near the source of power. Preliminary work, such as surveys, estimates of cost, etc., has been completed.

All the towns and cities included in the area which will be benefited by the carrying out of these undertakings are showing a steady and healthy growth. Corbin, which passed through a boom, is not experiencing the usual reaction, but the present progress is of the substantial kind. The population has doubled within five years, many industries have been established and others are constantly being planned. The Louisville & Nashville Railroad has investments of several million dollars here, and practically has made the town what it is. The roundhouses represent and expenditure of nearly \$1,000,000, and close to 1000 railroad men make Corbin their headquarters. Among new industries are two steam-laundry plants and an ice and carbonating works.

At Williamsburg six new brick and concrete business blocks are going up, besides numerous residences. The Commercial Club is boosting the town. The Kentucky Lumber Co. and the Jones Lumber Co. are two of the largest industries, and employ a large number. Several big coal companies have headquarters there.

Somerset is enjoying a remarkable growth. The city now has a population of 8000, a modern street-railway system, and the utilities of a public nature are up to date in every respect. Many new buildings, both private and residence, are going up, and the Commercial Club is constantly striving to advance the interests of the city and community. Pulaski county, of which Somerset is the county-seat, will take a vote on the issuance of \$200,000 in bonds for road construction.

The people of Monticello are eagerly awaiting the completion of the railroad from Tateville, which will give them better access to the outside world. The development of the Wayne county oil fields has greatly stimulated the growth of Monticello.

W. S. HUDSON.

## JAPANESE QUESTION ON THE PACIFIC COAST.

[Believing that a review of the wonderful development of the Pacific Coast, brought about mainly by the broad enterprise and energy of its people, would prove an inspiration not only to the South, but to the whole country, the Manufacturers' Record has sent its special correspondent, Mr. Phenix, to that section to study and write about the causes which have created its great prosperity.—Ed. Manufacturers' Record.]

[Special Correspondence Manufacturers' Record.]

San Francisco, August 1.

The editor of the MANUFACTURERS' RECORD has asked me to make some investigation of the Japanese situation. He mentions that the newspapers of the East are daily devoting many columns of editorial and news space to a discussion of the question, particularly based on the world interest that has been taken in the recent reported preparation to send a big fleet of American warships to the Pacific Coast; and he points out that any agitation that will bring about serious ill-feeling between the Governments of the United States and Japan is to be most deeply deplored and condemned. He wants to know if there is a deep-seated prejudice against the Japanese in California; whether the anti-Japanese feeling is confined to the hoodlum element or is general, and if the people of California are anticipating any trouble as an outgrowth of the present situation.

From such investigations as I have been able to make I think it is a fair report of conditions to say that everyone here scouts the idea of any such trouble as an armed conflict with Japan anywhere in the immediate future, if at all; but that there is a Japanese question there is no room for denial, and it is considered one which the United States will have to give immediate and serious attention to and settle, gently, but with firmness, just the same. There is no passion and no active and violent prejudice, even among the hoodlum element, so far as appearances indicate, but there is a widespread and firmly rooted conviction that Japanese exclusion is necessary to the prevention of a new racial problem that would make the negro problem in the South seem by comparison hardly more serious than a domestic disagreement in a neighbor's family.

The incidents of the school question and the wrecking of the Japanese restaurants are given little thought today. In the matter of the schools, it is pointed out, the authorities nullified a State statutory provision when they permitted Washington influence to prevail. On account of crowded conditions at the schools following the fire the school board decided that the Japanese—64 in number, by the ridiculous way—should be sent to the Asiatic branches of the public schools, as provided by law, so as to give room for white children who would otherwise be unable to get in. There are fine Asiatic schools here, of the primary grade, and it is worthy of note that the high school never was closed to the Japanese—only the primary grades.

The Japanese pupils barred out were from 17 to 20 years of age, and their school-mates were mere children. This still further urged the authorities on to action. President Roosevelt's interference brought about a reversal of the school trustees' rulings, and the Japanese were put back in the primary schools from which they had been barred.

There are in this phase of the question principles of a far-reaching and permanent nature, to be sure, for the Japanese object most strenuously to being discriminated against in any way. In every description of the Jap of today he is characterized as having grown very "cocky," and the loudest cry of the jingo of Japan is for an elimination of the Section 2, Article IV, clause of the proposed new Japanese treaty, and the substitution of a clause which will put Japan's footing in America on the most-favored-nation basis. To this there will be most strenuous objections raised by those on the Pacific Coast who are most familiar with all sides of the Japanese question, and there will be efforts made to bring the whole country to favor a rigid exclusion of all but certain kinds of Japanese, which include the higher types, totally different from the coolie class, which is almost exclusively represented in the emigrants of today.

Incidentally, it is interesting to note that Americans in Japan are not allowed to own property, and are otherwise deprived of privileges as well as rights.

The other matter, the wrecking by hoodlums of a couple of Japanese restaurants, is a mere incident of unsettled conditions here, but which might have occurred to a French restaurant in New York or New Orleans, a German restaurant in Cincinnati, or any other kind of restaurant anywhere at any time. As a matter of history, a Swedish restaurant in the same vicinity as that of the Japanese ones here was identically treated about the same time by the same hoodlums, or others of their drunken ilk.

A clear understanding of the Japanese question seems to be almost wholly absent from the public mind the entire country over. Even in California there has not been a crystallization of sentiment, as witness the laudatory mention of Japanese industry, which appeared in a recent issue of the ordinarily astute *Los Angeles Times* and reprinted in the MANUFACTURERS' RECORD. In this article it is related as greatly to the credit of the "little brown men" that he drops down in California with nothing but his hands as capital and soon blossoms out as a dude with good clothes and jewelry, and has become the owner of a store or a little farm.

California, with the whole world, needs willing workers, and needs them very badly. For this reason large employers of labor, who have not been through an experience with them, eagerly welcome the incoming of the Japs. They are now here by thousands, all through the State, and they are coming in hordes all the time. They are employed as farm hands and as servants, and they are doing nearly all the rough work at hotels, restaurants, saloons and business houses. Their initial industry is great, and they begin at lower wages than the whites. In these respects might seem to lie the only menace they present, and that alone to the shiftless, shirking and unionized type of white labor. This, however, is the mere surface covering of the situation, for beyond is every feature of the problem of all time, the result that will come from the competition of an inferior with a superior race. It is the Chinese question over again, only in worse form; for while the Chinaman was in the mass content to "keep his place," to be a servant, a laborer, or do "washee," the Jap sets no limit to his ambition, and wherever he gets a foothold he soon monopolizes the field.

Requiring less to keep him and putting up with conditions white men will not have, he is at the same time crafty and unscrupulous, and wherever he gets a start he crowds the white man out. Under the Chinese Exclusion Act the Chinese are disappearing from the Coast. There are 35,000 in California today, as against 40,000 by

the census of seven years ago. Since the Japs have begun to come in, and a basis for comparison has been obtained, there is universal regret felt that a swap has occurred. The Chinese are held up as faithful and loyal to a degree, while the Japanese are declared to be equally as unreliable. "I'd rather take a Chinaman's word than a Jap's bond any time," is a declaration that passes current as the accepted opinion. Any number of times I have been told that the word or the contract of a Jap are wholly unreliable; that when one may be working for you he is altogether likely to disappear at any moment without a word of warning, and that contracts have no binding effect.

In several parts of California the results that would follow the unrestricted immigration of the Japanese have been demonstrated. In the fruit-growing sections, where hundreds and thousands of hands are required during the picking season, the coming of the Japanese was at first hailed with delight by the growers. A Jap would come along and make a contract to furnish the hands, keep them and do the entire work. The grower had been obliged to furnish some sort of accommodations for the hands he formerly employed; the Japanese required nothing of the sort, for they were not particular where they slept or how they lived. When the Jap contractor had driven out the white labor, and when the former quarters for the white hands had become dilapidated and the grower was at the contractor's mercy, he would not hesitate to raise the price of his labor 100 or 200 per cent. over the contract price, at a time when the crop must be immediately picked to save it from entire loss.

The report of the Bureau of Labor Statistics for 1905-06 contains a special chapter on the Chinese and Japanese. The report was compiled by W. V. Stafford, at that time labor commissioner, but since appointed by the Governor to be harbor commissioner here. Mr. Stafford is a conservative and well-accredited citizen. In his report he describes conditions at three points where the Japanese are well entrenched. Of conditions at Watsonville, in the Pajaro valley, where there are 700 Japanese permanent residents, the report says:

"Men of standing in the community who employ Japanese and who have no race prejudice apparently, and who are distinctly opposed to labor unions, largely on account of the opposition of the latter to Orientals, declare the Japanese to be decidedly dishonest and totally inferior in this regard to the Chinese. When the Japanese arrived in the Pajaro valley they were welcomed by the merchants largely on account of the fact that they wore American clothing and showed a decided disposition to trade along American lines, and rented houses without herding together as do the Chinese. Today the merchants bitterly complain that the Jap has become their very close competitor. He also runs restaurants, barber shops, billiard halls, saloons, groceries, dry goods and ready-made clothing stores in the city of Watsonville, and operates buses and delivery wagons in the adjacent territory.

"One bank in Watsonville positively refuses to open an account with the Japanese because of their absolute dishonesty, the same bank welcoming business from the Chinese. The local postmaster places the Jap in a class by himself, and will not cash his money orders without other evidence than the possession of the order; and there is a large postoffice money-order business with the Japanese on account of the fact that certain banks decline to do business with them. It is charged that when they catch their employer in extremities they will strike without any provocation, simply to get an increase, regardless of agreement."

An investigation made at Vacaville, in the center of the Vaca valley, Solano county, shows, according to the same report, "that the Japanese came into that valley about 15 years ago and commenced working at very low wages. Their numbers increased until they not only displaced about all the white labor, but almost entirely ran out the Chinese. Then they began to rent orchards, paying cash in advance, thereby undermining the Chinese, who generally paid with the share of the crop. The Jap outbid the Chinaman until he ceased to be a factor. This condition developed until the Japanese control, by lease and ownership, half of the fruit farms of the valley at this time. Latterly their handling of leased ranches has been less satisfactory. They cultivate indifferently, or for immediate results, to the serious detriment of the property. Prior to the advent of the Japanese the Vaca valley was renowned for its orchards, which attracted wide attention, especially on account of the superior methods of pruning and cultivating.

"It is generally conceded that 90 per cent. of all the people met, walking or driving, on all of the country roads around Vacaville are Japanese. One of the prominent fruitgrowers and shippers of the valley estimates the fruit orchards of Vaca valley and adjoining foothills at 15,000 acres, more than half of which are in the hands of Japanese lessees or owners, principally leased. He declares the Jap to be an expert at drawing all the vitality out of the land and the trees. Land values have shrunk one-third in the past 15 years. Low prices of fruit and scarcity of suitable labor are held to be responsible. The Japanese stores, of which there are six in Vacaville, are doing more than 50 per cent. of the general merchandise business of the town and 90 per cent. of the farm supply business.

"In Fresno county there are employed about 5000 Japanese and 500 Chinese in the fruit and vineyard industry—this number from the middle of August to the middle of September, when raisin grapes with other fruits are ready for picking. At this writing (September 25, 1906) 1500 Japanese have left. A little later 1500 more will leave. The remaining 2000, together with the 500 Chinese, will stay in and around Fresno through the year, doing pruning, hoeing and other farm labor and vineyard work.

"In Fresno, as at other points, it is generally conceded that the Jap is merciless when he has his employer at a disadvantage; that he will work cheaply until all competition is eliminated, and then strike for higher wages, totally disregarding any agreement or contract.

"There is no place in the State where the problem is so grave, from the fact that the huge raisin territory (and Fresno is the greatest producer of raisins on the planet) depends almost entirely upon Orientals. Last year over 4000 cars of raisins were shipped from Fresno. The more intelligent citizens realize the gravity of the situation from both the economic and racial sides. Similar conditions in a lesser degree exist in the different berry and sugar-beet sections of the State. The general persistency with which the Japanese are breaking into many industries, their frugality, their ambition and their lack of business morality render them more formidable even than the Chinese."

Statistics prepared by the California Promotion Committee show that whereas there were only 20,000 Japanese in California in 1904, there are 93,000 here today.

The estimate of the Bureau of Labor provides the figures for 1904. Since then the steamships have brought 52,928 more than have been carried away, and the Promotion Committee estimates that 20,000 have come in by way of Seattle, British Columbia and other Northern points and by way of Mexico. This estimate puts the number of Japanese at the head of the list of foreign-born residents of California, the Germans coming next with 90,000.

In San Francisco there are probably 20,000 to 30,000 Japanese at this time. Besides working as servants, helpers, etc., they are to be found in almost every line of business and profession. They are living in various parts of the city, for while they are liable to locate in swarms or colonies, they do not confine themselves to a single quarter, as do the Chinese in every city where they reside in any numbers. As tenants it is complained that they pursue the same tactics that they do as contractors for field and orchard work. As they thickly bunk together in a house and carry on several businesses under one roof, they can afford to pay a larger rent than white tenants. Appearing to be more advantageous than the whites, the landlord displaces the whites. In the course of time, and when a colony has been established, so that the property has lost its attractiveness to a white tenant, the Jap will notify the landlord that he must have a material reduction in the rent or he will move away—which is another point of difference between the Jap and the Chinese.

In discussing the Japanese question with numerous men of affairs I found a unanimity of opinion among those who had considered the matter at all as to the real existence and potential gravity of the Japanese question and the necessity for a rigid exclusion. These opinions were expressed without excitement, without alarm, but equally without hesitation.

ALBERT PHENIS.

## Fuel-Testing Plant of the U. S. Geological Survey.

By C. T. WILKINSON.

[Written for the Manufacturers' Record.]

The fuel-testing work of the United States Geological Survey should be followed with close interest by all engineers, not only because it is important to all power consumers, but in this branch of the Government work because it is undertaken to point out new paths for the development of the natural resources of the country by locating, classifying and testing all kinds of available fuel.

In Europe, where the fuel resources are now fully known, there has been no need for so powerful an organization as that which is now rapidly making the resources of this country as well known to the public as that of the older European countries.

Accurately compiled results of the more recent work of this branch will soon be

rates of combination and the best ratios of grate and heating surfaces.

The B. & W. boiler will be placed beside the two Heine boilers which have been brought from St. Louis, all three having been provided with induced-draft apparatus in order to get a wide range of capacity. The Heine boiler provided with the Jones stoker has the usual arrangement for forced draft. The B. & W. boiler was inserted partly to enable tests to be made of the same fuel with different types of boilers. It serves to represent the types employing a perpendicular flow of the gases through the tubes, the parallel flow types being represented by the Heine boilers. The Heine boilers have been rebuffed or partitioned in such manner as to



POWER AND ALCOHOL BUILDING.

published, and the following particulars of the plant in Virginia will doubtless be of interest:

In the power and alcohol building in the grounds of the Jamestown Exposition, containing the boilers, gas producers and engines, new apparatus has been added to the steam-engineering division as follows: A 250-horse-power Babcock & Wilcox boiler, with superheater, provided with a Roney stoker; a Jones underfeed stoker with fan added to one of the old Heine boilers; two direct-current De Laval turbine sets, rated 300 horse-power at 9000—900 revolutions; also three Green Fuel Economizer Co.'s induced draft fans.

The method of work planned for this section is to be slightly changed, so that instead of testing a great number of coals, more tests will be made of the same coal, different sizes and different methods of stoking or feeding, etc., being employed, with the object of determining the most economical performance under different

practically double their length by compelling all the heated gases to pass along the entire length of the tubes twice.

An additional alternating-current turbo-generator set may be installed to supply power for external and exhibition purposes.

The steam-engineering division, which has practically succeeded in isolating the performance of the boiler from that of the combined performance of the boiler and furnace, will carry on further tests with the object of still further determining the performance and efficiency of the furnace alone.

In the producer-gas section is the gas producer and the Westinghouse gas engine transferred from the St. Louis plant. Some slight changes have been made in this apparatus. For instance, producer No. 7 has been provided with a water seal at the base to permit the ashes to be removed without admitting air, and several holes have been bored at different heights,



to be used for extracting samples of the gas. The purifying apparatus used at St. Louis has been removed. This, it will be remembered, consisted of the usual chamber containing iron filings and wood shavings, since experience indicates that the danger from impurities has been considerably exaggerated.

A special steam pipe has been provided to insure a steady water pressure, since the pressure of the supply mains fluctuates considerably.

The gas engine is belted to a 200-kilo-

Experiments will be made covering the whole range of this field, but for the present the work will be confined chiefly to examinations of different carbureters, with the object of showing the lines along which a more efficient method of vaporization may be obtained. The other more prominent work is the examination of the kinds of fuels available, with special reference to gasoline versus alcohol, and an investigation of the use of kerosene as fuel for this class of engines—an investigation necessitated by the increasing de-

be detailed to investigate closely the whole subject of explosions in coal mines with a

view to eliminating danger from this source.

## JOPLIN'S RISE AS A MANUFACTURING CITY.

[Special Correspondence Manufacturers' Record.]

Joplin, Mo., August 3.

Outside of those intimately familiar with the industrial life of Joplin, there are but few who recognize its true importance as a manufacturing center. So thoroughly has its ascendancy as a zinc producer been heralded and so singularly rich have been its mines that its agricultural interests, which even surpass the mineral products in value, and the manufactures, which also promise soon to surpass the mines, have been almost completely disregarded except by the comparative few who come in immediate contact with them or discover their importance in statistical reports. Joplin manufacturing is young, but within the past four years, since the inception of the city's growth as a manufacturing center, no less than 12 distinct forms of manufacturing have located here and built up a splendid business, and now within the past month have come applications of 10 other manufacturers wanting a site for factories, either main or branch.

Eventually Joplin must wane as a mining center. In the struggle for leadership Webb City has already won, and even if the mines of her rival should not lessen, its relative importance as a mining center is doomed to lessen, unless, in accord with the suggestion of some, as lower levels are reached sheet ground is discovered such as has placed Webb City in the front of producers.

Long, however, before the decline begins the singularly favorable economic conditions of the town will make it important as a manufacturing center. It is already supplied abundantly with natural gas from Kansas, which supplies not only the homes, but the mills and factories with light and fuel of remarkable cheapness. Sold in quantities such as used in factories a rate of 10 cents per 1000 cubic feet is made in winter and 12 cents in summer. Surrounding the city is one of the richest agricultural sections of the United States, and the hard wheat used in the mills and bakeries comes from Kansas, while the soft wheat comes from the immediate territory surrounding. For all kinds of manufacture where wood is employed come abundant supplies from the forests of Arkansas and Louisiana. Connecting all these fruitful sources of supply with the city, and it, in turn, with Kansas City and St. Louis, are four important trunk lines of railway and a contemplated fifth. The Missouri Pacific, Frisco, Kansas City Southern and Missouri, Kansas & Texas railways ramify all that territory with which at present it is important to be connected, while the St. Louis, Bartlesville & Pacific Railway now has a proposition pending before the Joplin Commercial Club for entrance into the city. These, with splendid interurban service of the Rogers street railway, still further improved by the Heim line, connecting Joplin with Pittsburg, Kansas and intervening points, will make the city one of the most important transportation centers of the State, giving it almost matchless advantages in shipping in its raw material and sending out its manufactured products. These exceptionally propitious economic advantages have been responsible within the past few years of making Joplin an important factor in the manufacturing interests of the State.

One of the first of these manufacturers to recognize Joplin as a favored location was the Junge Baking Co., which, organized under the laws of Illinois, capitalized at \$40,000, with a surplus of \$35,000,

began the manufacture of bread in 1900 and crackers also in 1904. It employs 80 men, 23 horses, 10 wagons. Its payroll amounts to \$3000 per month; freight and express, \$400 per week. It uses two cars of box lumber per month, 90 to 100 cars of flour per year, bakes from 35,000 to 40,000 loaves of bread per month and 450 to 500 boxes of crackers and cakes. The annual output is valued at \$250,000. The plant embraces a bread department, 55x110 feet; a four-story cracker department, 72x55 feet; oven, 22x22 feet; office, 22x30 feet; barn, 45x60 feet; carpenter shop, 15x20 feet. Electricity is used for power and gas for fuel. Hard wheat flour is brought from Kansas and soft wheat from local markets. The Junge Baking Co. operates the largest steam bakery in the Southwest, and supplies the trade in the radius of 150 miles of Joplin.

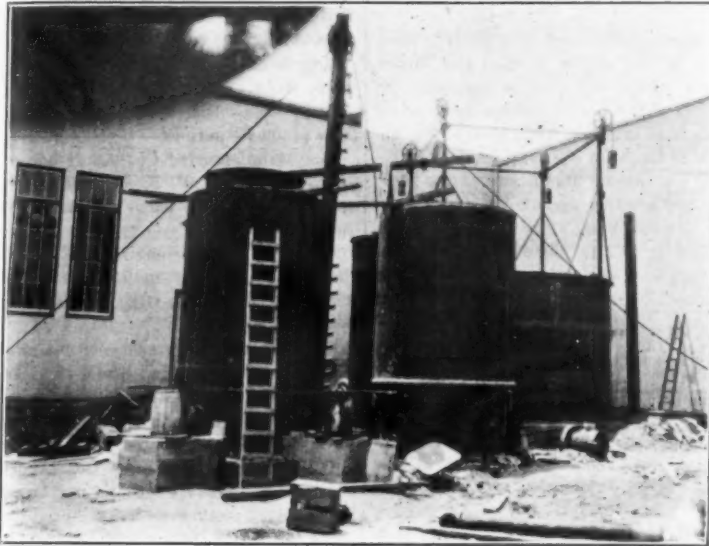
The Middle West Brewery Co. has recently moved into its new quarters in the east part of the city. Thirty men are employed, and produce 100 barrels of beer daily. The brewery has a storage capacity of 30,000 barrels annually, while the ice plant produces 50 tons of ice every 24 hours.

The Independent Candy Co., capitalized at \$50,000, was organized in Missouri. It has floor space amounting to 17,000 square feet, employs 50 people, and turns out annually \$120,000 worth of products. The plant, operated with steam power, is valued at \$25,000, and runs full capacity. The company was organized in 1903, and has had three years of prosperous business, during which time its trade has grown constantly and extended to Southwest Missouri, Eastern Kansas, the eastern parts of Oklahoma and Indian Territory and Northern Arkansas.

The Reynolds Carriage Works, a Missouri corporation, organized early in 1904, places on the market a complete line of fine carriages. Its new storerooms, occupying two stories of a building 50x122 feet, contain one of the most complete displays of all varieties of carriages to be found in the Southwest. Their factories occupy 10,000 square feet of floor space, and 30 men are employed. The company has an authorized capital of \$40,000, and has \$25,000 paid up. The Reynolds Carriage Works is considered one of the substantial firms of Joplin.

The Lillard Planing Mill, though small, is one of the most substantial manufacturing concerns of the city. It employs from six to eight men, and is kept busy to its full capacity. Its owners expect soon to increase the capacity to more than double what it is now, the present capacity of the mill being about \$15,000 per year. It is closely connected with the Missouri Pacific, Missouri, Kansas & Texas and Frisco railways, and is in easy reach of the Kansas City Southern.

The Joplin Overall Factory, also a Missouri corporation, capitalized at \$50,000, was organized February 5, 1906, and began business June 2 of the same year. The plant of this company consists of a three-story brick building 30x90 feet, containing 8100 square feet, located on a plot of ground ample for the enlargement of the factory contemplated for the coming year. The latest and best machinery is installed for the manufacture of jumper coats and overalls; 78 people and 70 machines are employed, and turn out a weekly output of 250 dozen suits of overalls, valued at \$2700. Within the year 400 machines



GAS-PRODUCER PLANT.

watt Bullock generator brought from St. Louis, which serves to drive the motors for the apparatus in the building, the machine shops, the briquette plant, the elevators and the conveyor. Any additional load required is obtained by means of a water-box resistance, which can be regulated by the switchboard attendant so as to maintain a steady full-load value.

The plans of this section include the following determinations:

The proper length for a test run, the effect of the size of the coal, the best depth

mand for gasoline and the limited supply available.

The study of the destructive distillation of the coal and its combustion in gas producers, coke ovens and furnaces, especially from the standpoint of physical chemistry, will be undertaken by several divisions.

The briquetting division, which occupies the large room at the end of the building, is putting down one additional German briquetting machine, while the previous apparatus of English and American manufacture that was used at St. Louis is in-



INTERIOR OF THE BOILER-HOUSE.

of fuel bed, the effects of rapid load variations, the maximum returns from different fuels, and the response of a producer plant to sudden demands for power.

A new work of great importance is being undertaken in the alcohol, gasoline and engine section. Its equipment includes two 15-horse-power 250 R. P. M. Otto gas engines, two 15-horse-power Nash Company's engines; one two-horse-power International Harvester Co.'s engine, and two John Deere engines rated at 14 and 18 horse-power, respectively.

stalled in the same room. The work of this division will be chiefly the manufacture of briquettes from various run-of-mine coals of the Eastern fields, which will be tested on war vessels under the direction of the steam-engineering division.

The further fuel-testing work of the Geological Survey includes tests dealing with the spontaneous combustion of the stored coals, in which an effort will be made to simplify the methods for its prevention, while a corps of specialists will

and 500 people will be employed. Missouri, Arkansas, Oklahoma and Texas receive the product of this factory.

The Missouri Concrete Co. is a new concern which has its existence based on the work already done in the mines. The immense tailing piles throughout the district furnish abundant material to be used with cement for the manufacture of concrete blocks. The easy reach of the cement plants of Kansas with the other material ready at hand makes this a particularly suitable industry for this section. This company began business about eight months ago with a capitalization of \$25,000, \$10,000 preferred and \$15,000 common. It operates three factories, respectively, 65x135 feet, 100x48 feet and 40x30 feet. Electricity generated by a 125-horsepower New Era gas engine is the motive power used in all the factories. All blocks are made under 110 tons pressure. They are made in four sizes—8x12x24 inches, 8x9x24 inches, 8x8x16 inches, 8x10x16 inches. Reinforced concrete blocks as long as 20 feet form also a large part of the product of this factory. It has been operative about eight months, employs 30 men and produces a daily output valued at \$400. The office is built of the product of the factory, and is a very attractive building. This company is increasing its business at a very rapid rate, and promises exceptional profits for its stockholders.

With the establishment of the Keller Manufacturing Co. at Joplin January 2, 1906, this city can justly claim the best-equipped wagon factory outside of such cities as Chicago, Racine and Louisville. The Keller Company, organized under the laws of Missouri with a capital stock of \$150,000 has been in operation six months, and employs when running at its full capacity 350 men. The company owns 25 acres of land immediately west of the city, thus having ample opportunity to grow in accord with the trade. The building, 150x480 feet, with the storerooms, affords 300,000 square feet of floor space. Private switches from the Missouri, Kansas & Texas and the Frisco railways run directly by the factory, and it is in easy access also of the Kansas City Southern and Missouri Pacific railways. This plant, using natural gas for fuel, has a capacity of 50 wagons per day, or 15,000 per year, valued at \$75,000. It is equipped with the most modern of wagon machinery for all parts of the wagon, including bending machines, so that no part of the wagon is imported ready made. Whippletrees, spokes and neck yokes are all made here. The paint is ground in the factory, and only the very best is used. Being located in the heart of the timber belt which produces so much hardwood, and having selection from hundreds of sawmills, the highest grades of locust, hickory and white oak constitute the wagons which come from this factory, which is a branch of a firm which puts 25 years' experience into its product. Wagons from Joplin are sent to various parts of Missouri, Arkansas, Oklahoma, Nebraska, North and South Dakota, and parts of wagons as far east as New York. As a result of the coming of the wagon factory a new addition has been built to the city, and it is proving a magnet to population and making the investments pay a handsome profit.

The Joplin Casket Co., recently organized largely of local business men, is a Missouri corporation capitalized at \$100,000. Its property is located in the east part of the city, and consists of an attractive plot of ground on which is located the new building, 60x150 feet. It is built on most pleasing lines of architecture, and as a factory building will be exceptionally attractive, not alone from the character of the architecture, but the location, 20 feet from the front property line, which will

allow ample opportunity to execute the plans of the company to beautify the grounds and make the site attractive. As it is located near the crossing of the interurban car line and the Frisco Railway, thousands of people will see it every month and will be attracted interestingly by it. The building is in this respect a votary of the same happy combination of esthetic and commercial principles as are operative in the case of the National Cash Register Co. of Dayton, Ohio, and the Eastman Kodak Co., Rochester, N. Y., whose beautiful grounds have done as much as any other one thing toward advertising the respective enterprises. The building is built of Cherryvale pressed brick and Carthage limestone, while the interior is of wood and steel. Every principle of convenience and utility has been incorporated into its structure. The floor space will be 18,000 square feet, and the engraving shops, as well as the whole factory, will be thoroughly lighted and ventilated. The capacity of the factory will be 8000 caskets annually; 40 to 60 men will be employed. The motive power will be electricity arranged in the group system, a number of machines being operated with one motor. The factory is expected to be completed in 30 days. A switch will be run along the side of the factory to the east. The raw lumber will largely be imported from Arkansas, Louisiana and Texas. Only the very highest grade artisans will be employed, and only the highest grade work turned out. The head of the sales department has been a prominent member of one of the largest St. Louis casket firms, and the superintendent has for many years occupied a similar position with one of the best factories in Indiana. As this will be the only factory of its kind between Joplin and the Pacific coast, and is soon to absorb the factory at Bentonville, Ark., there is no fear that the entire capacity of the plant will be taxed by the vast territory from which its business will be drawn.

One of the most substantial and promising manufacturing companies of Joplin, and one which seems destined perhaps to mean more than any other one concern for its future, is the Southwestern Bridge Co., which carries a stock of 500,000 tons at all times, the largest west of the Mississippi river, and adequate for any ordinary contract. It was organized in Missouri with a capitalization of \$200,000, and was the successor of the Bartlett Steel Co. It has a large plant site in the southeastern part of the city, and although it now has a floor space of 120,000 square feet, it is still in process of erecting other buildings, including an auxiliary, which will add very materially to the space already occupied. All the machinery is of the very latest pattern, and it is stated by disinterested parties who have had long experience in the steel business that this plant, though smaller than many, is as well equipped as they ever saw. The capacity of this plant is 18,000 tons per year. It manufactures all kinds of steel bridges, tanks, standpipes, turntables and steel frames for buildings, and draws business from all that territory west of the Mississippi river between Canada and Mexico. From 300 to 400 men are regularly employed, including a large number from the Eastern technical schools, for which it is supplying an ever-increasing demand.

The Miners Gas Engine & Manufacturing Co., one of the latest adjuncts to the manufacturing interests of Joplin, was organized by L. L. Scott, the inventor also of the gas engine and gas rock drill which the company manufactures. The company is capitalized at \$50,000, has a factory site 150x300 feet on which is located its factory, employing 15 men and capable of manufacturing two 90-horse-power engines and six five-horse-power engines per

month. Two private switches are adjacent to the property, making shipping raw material and the finished product very convenient. It is claimed for the gas engine that there is a great saving of fuel over other engines, and for the gas drill that great economy is secured through the direct use of gas in the drill rather than using gas to drive an engine, which, in turn, drives a compressor and finally operates an air drill several hundred feet away. It is claimed by the manufacturer that 80 per cent. of the fuel will be saved by the installation of the direct gas-driven drill.

These manufactures, with the early operation of two others, a brass and bronze works, which will soon be supplying the district with brass and bronze goods of all kinds, and the Hale-Webb Motor Fire Apparatus Co., with a capital stock of \$300,000, will render Joplin one of the most live and growing manufacturing cities in the middle West. The brass works is backed by W. G. Sargent, a prominent foundry and machinery man; will occupy a factory 100x140 feet, and employ 18 to 20 men. The Hale-Webb Motor Fire Apparatus Co. was organized by A. C. Webb, a prominent automobile man and chauffeur of national reputation, and Fire Chief Hale of Kansas City, who is known the world over as a famous fire fighter. This company has about 75 patents on various kinds of fire apparatus, and will build hose, ladder, engine and truck wagons. The claim for this company is that it is the only company in the world organized especially for the manufacture of this kind of product.

In epitome the history of Joplin as a manufacturing city began about four years ago. During that time, to say nothing of 8 boiler works and 10 foundries and machine shops dependent on the industry of mining, 12 flourishing manufacturing companies, with an aggregate capitalization of \$1,115,000, an annual output of \$2,853,400 and employing 1115 men, absolutely independent of mining, have located and grown into flourishing concerns, while 10 others are knocking at the doors of the city for admittance.

### MILLIONS IN THE PIEDMONT.

#### Twenty Years' Investments in and Near Anderson.

[Special Cor. Manufacturers' Record.]  
Anderson, S. C., August 2.

There is no city or county in the South that has kept better pace with the rapid development of the wonderful resources of the South than has the city and county of Anderson, S. C.

Only a few years ago this was strictly an agricultural section. Watered by three large rivers—the Tugaloo, the Seneca and the Savannah—the lands were fertile, farming produced a competency and the people were slow to awaken to the great possibilities which surrounded them. They were asleep to what nature had done for their country. In addition to the fertile hills and valleys, the never-ceasing roar of the waters of the Tugaloo, Seneca and Savannah rivers rushing over miles of shoals should have aroused them to the fact that the power of these waters could be turned into electrical power and transmitted in every direction over their country. But their training had been for agricultural pursuits. They knew little of manufacturing. They appeared content to raise the raw material and leave its manufacture to the New England States. Yet at one of the shoals lying adjacent to Anderson—Calhoun falls—they had more power capable of development for electrical purposes than has Lowell and Lawrence, Mass., with the tremendous amount of manufacturing that has centered about them.

But 18 years ago a change took place. The people became aroused to their possibilities. The first cotton mill was built, and since that time cotton mills and other manufacturing industries have been built and put in operation all over Anderson county, and \$8,500,000 has been put into a joint stock company for the development of the water-powers of the rivers. The following is a list of the cotton mills of this city and county:

Anderson Cotton Mills, Anderson; organized in 1889; R. E. Ligon, president; spindles, 70,000; looms, plain, 1140; automatic, 724; products, brown sheetings and print cloths.

Brogan Mills, Anderson; organized in 1904; J. A. Brock, president; spindles, 25,000; looms, box, 498; Draper Dobby, 366; products, outings.

Cox Manufacturing Co., Anderson; organized in 1899; W. F. Cox, president; spindles, 25,000; no looms; product, 40's yarns.

Gluck Mills, Anderson; Robt. E. Ligon, president; organized in 1903; spindles, 32,000; looms, plain, 672; product, fine lawns.

Orr Cotton Mills, Anderson; organized in 1899; Dr. S. M. Orr, president; spindles, 56,536; looms, Draper automatic, 1504; product, sheetings, shirtings and print cloth.

Riverside Manufacturing Co., Anderson; D. P. McBrayer, president; organized in 1889; spindles, 18,928; products, yarns 20's to 30's, single and two-ply.

Toxoway Mills, Anderson; D. P. McBrayer, president; organized in 1902; spindles, 16,128; looms, automatic, 484; product, print cloths.

Belton Mills, Belton; organized in 1899; E. A. Smyth, president; spindles, 53,000; looms, automatic, 1400; product, sheetings and drills.

Chiquola Manufacturing Co., Honea Path; organized in 1902; J. D. Hammet, president; spindles, 40,320; looms, automatic, 1000; product, wide and narrow print cloths.

Pelzer Manufacturing Co., Pelzer; E. A. Smyth, president; spindles, 130,000; looms, automatic, 3400; product, sheetings and drills.

Piedmont Manufacturing Co., Piedmont; one-half of mill in Anderson county; Wm. E. Beattie, president; spindles, 67,300; looms, plain, 534; automatic, 1532; product, sheetings, drills, yarns.

Williamston Mills, Williamston; organized in 1900; James P. Gossett, president; spindles, 32,256; looms, plain, 861; product, wide print cloths.

Iva Cotton Mills, Iva; D. P. McBrayer, president; spindles, 21,400; looms, 640; product, sheetings.

From the above it can be seen that in 18 years this section of the South, Anderson county, alone has spent millions of dollars in building mills and has put in operation 554,218 spindles and 13,676 looms in manufacturing cotton, the principal crop of this part of the South.

In addition to this, the city of Anderson and the town of Belton, 10 miles distant, have been lighted by electricity. Eight miles of street railway have been built and put in operation in the city of Anderson and 10 miles of interurban electric road built and put in operation between Anderson and Belton, the electrical power being supplied from the Savannah river.

The farms of the county of Anderson are in the hands of intelligent white farmers, and there are marketed in the city of Anderson from wagons 45,000 bales of cotton each season, a corresponding amount of corn, wheat, oats and vegetables are made, and the people of this immediate section are as progressive, prosperous and contented as can be found anywhere in the South.



# CURRENT EVENTS AS VIEWED BY OTHERS

## ROBBING THE POOR.

[New York Times.]

Fritz Reichmann of Troy, who surprised 20 grocers in Albany yesterday by a visit to examine their weights and measures and declared the people of the State are defrauded to the extent of \$20,000,000 a year by false balances, is the first State Superintendent of Weights and Measures to be appointed at a salary large enough to make it possible to do the work of his office. Patrick Derry, Chief of New York city's Bureau of Weights and Measures, said yesterday that one of the most common cheating practices is the use of liquid measure instead of dry measure. A dry measure quart is 15 per cent. bigger than a liquid measure quart, and a merchant will buy peas, beans and the like by dry measure and sell them by liquid measure, thus making a 15 per cent. gain, in addition to the regular profit. Many grocers pretended not to know that there is any difference between a dry and a liquid measure quart.

According to the last annual report made by Chief Derry, ice dealers have been among the worst offenders in New York city. During the first year's work of the bureau 179 ice dealers out of 582 inspected were found giving short weight. This means that 30 per cent. of the dealers were cheating. Most of this pitiful thievery was done in the poorer districts of the city.

Coal dealers have been persistent offenders also, says Mr. Derry. In many cases in the Borough of Richmond the wholesale coal dealers use no scales at all. They have sacks purporting to hold 100 pounds of coal, and 20 of these are delivered for a ton. One load of 20 sacks was halted and weighed. It was one-seventh short. Often the driver of a coal wagon is weighed in with the load, but he isn't delivered with the coal.

"Downright fraud is practiced by retail coal dealers," continues the report. "These dealers operate generally in the poorer neighborhoods, where their nefarious trade can be carried on with the least trouble and without much fear of detection. Here the short weights and measures do the most harm, as the very poorest of the poor are the victims of the fraud. These poor people usually buy coal by the bushel or the 100 pounds, and they rarely get more than one-half of the amount they think they do."

"Grocers put up all sorts of articles in paper bags purporting to contain weights and measures, and these they advertise at low rates. But the weights are often so fixed that the grocer makes a greater profit than if he gave honest weights at standard prices. These packages are called 'shorts,' and are usually worked off on children who are sent to grocery stores by their parents, says Chief Derry."

"Many butchers follow the plan of taking all sorts of attachments off their scales, so that they will give short weights. This is done particularly on Saturday nights during the rush hours or before holidays, such as Thanksgiving and Christmas. Business is so crowded then that patrons neither look closely at the scales nor have the inclination to raise a quarrel, even if they do have suspicions."

"Chief Derry declares that some butchers at Washington Market so place their scales on the sidewalk that the wind exerts a pressure on the scoop, making the customer pay for a number of pounds of wind, in accordance with the stiffness of the breeze. One day, when such a scale

was tried by an inspector of the bureau, a four-pound piece of meat, with the assistance of a most gentle breeze, ran the pointer around to six and one-half pounds. 'Heaven knows what a 10-pound hunk of meat would weigh with the wind blowing a good January gale,' says Chief Derry."

## DREAMS COMING TRUE.

[Troy (N. Y.) Times.]

Brazil is entering upon a great scheme of interior development, and there, as elsewhere, the railroads will play a most important part. An American syndicate has been formed which will have the direction of the work. It is contemplated to construct a system which, with connecting links, will include over 6000 miles of track, the lines so constructed opening up vast regions of the country, where coffee culture and other agricultural operations may be carried on. Coupled with this project is another including electric traction and lighting and harbor improvement schemes, the whole magnificent plan involving an outlay of perhaps \$150,000,000. All this means a great forward step for Brazil, though it may be some time before the undertakings will be found remunerative. There is a big difference in the matter of immediate returns between opening unsettled territory and stimulating its industrial development and building lines in a settled country to accommodate traffic seeking additional facilities. But Brazil has incalculable natural wealth, and there is little doubt that in time it will be turned to good account.

Sooner or later the South American continent will be exploited as other regions have been. And the Panama Canal will be a powerful help in that direction. So will the extension of railroads to join the two continents in uninterrupted connection. And both are bound to come. Forty or fifty years ago the consummation of such a scheme was the dream of men whose ideas could hardly command the attention of even the most thoughtful persons of that day, and who were regarded by the greater part of the public as irresponsible visionaries. They were ahead of their times, that is all. Their foresight is rapidly becoming vindicated. Enormous progress is being made straight in the direction indicated by those who first pointed the way, and manifest destiny is working out the problems connected with the undertakings. The Panama Canal is going right along, and thousands of miles of railroad have already been built or soon will be constructed, every inch of which is a factor in bringing the people of this hemisphere into closer relations.

## CROPS AND INDEPENDENCE.

[Wall Street Journal.]

Observers of changes which have taken place in the grain and cotton sections of the West and South note a tendency to decreasing dependence upon outside money markets for many of the operations incident to the harvesting and marketing of their crops.

So far as this has been the case it is the result of changes in the business organization of the community as well as the methods of doing business. Two or more decades ago, and even more recently, the relations of the large grain-buying centers to the farming districts around them were simply those of merchandising, in which the farmers sent grain to market and bought merchandise. In this way the one movement balanced the other, the movement of money to the country to buy grain being followed by the purchase by the country

producers of their supplies for the winter and the payment of their deferred debts.

A different condition developed slowly when the grain-buying and the merchandising centers became manufacturing centers. As the field of manufacturing investment enlarged in such cities as Minneapolis, Milwaukee, Omaha and Kansas City an additional fund of working capital became a new feature of the financial organization. Instead of simply needing money to move the crops and supply merchandise in the fall, manufacturing made the need of money perennial instead of seasonal. When this came to be the fact a new financial era was begun in merchandising, partly also because of the all-year-round demand which manufacturing labor made upon the merchandising business. Meanwhile the wealth of rural districts increased, the demand for consumption from that quarter for manufactures became less a seasonal demand and more of a continuous requirement, each of the four seasons creating its own demand and thus forming a continuous call upon the trading and manufacturing activities of such large centers.

The growing independence of the West and South is also due to a change in the people themselves. They buy more frequently and more abundantly because they are better able to do so. They live better and enjoy themselves more because they have a larger measure of the wherewithal. As manufacturing and transportation have changed the South they have left fewer people in the field and put more machinery there, so that the total earnings of agriculture have to be divided between capital and labor, with a larger proportion to machinery as well as a larger per capita share to labor. People carry much more money with them in agricultural and manufacturing districts than ever, and this is part of the means by which each of the great commercial districts of the crop-growing regions of the West and South is coming to have a degree of financial independence, even in times of crop moving, which was unknown 20 or even 10 years ago.

## PARTNERS IN WEALTH.

[Newark (N. J.) Evening News.]

Taking the Government total of \$104,000,000,000 as the representative of the aggregate wealth of the country, although it refers to the year 1904, it is estimated, as laboriously explained, that the total of \$80,800,000,000 only is the amount of possible income-producing wealth in the United States; and that this, at 4 1/4 per cent.—the average of what the railroads of the country paid to their owners and bondholders in 1904—would point to an annual return of about \$3,534,000,000. From census bureau statistics also, with some modification, it is determined that there are about twenty-three million-odd wage-earners, all things considered, getting as low, on the average, as \$450 per annum, which, being multiplied by the total number of wage-earners, gives an aggregate of \$10,340,000,000 as the estimated annual compensation to labor; or, as the critic puts it, about three times as much for the wage-earner as for capital.

In making this comparison it is noted with great care that as the words are used capital is no synonym for wealth, nor is labor for poverty; because a large portion of the one hundred and seven billions of accumulations are the property of wage-earners themselves, as indicated by the nearly three and a half billions in

the savings banks, the ownership of nearly two and three-quarter billion life insurance company assets, and the more than sixteen and a half billion dollars' worth of farms which are owned by nearly five million seven hundred thousand families.

The inference is therefore forced upon one, as it were, that if there is anything disturbing in the contemplation of these enormous totals of wealth, it may be dissipated by a realization of the fact that it is greatly subdivided, and that a large part of it belongs to the very people who, it is said, are, or should be, anxious to sympathize with the Socialist doctrine of communism of property. If, in order to satisfy the most extreme objector, one were to abolish the returns to capital and turn over that portion to the wage-earner it would mean, as shown above, an annual income for the latter of only \$600 instead of \$450, an increase of only 50 cents a day, as the result of "labor" taking the portion which now goes to capital. Yet one can easily imagine that even this explanation will not satisfy the many who are merely economic "Oliver Twists." And if \$80,000,000,000 of capital did not demand some return, what would be the mainspring behind the activity which gives work to the wage-earner?

## PROHIBITION IN THE SOUTH.

[Geo. M. Whitaker in Boston Transcript.]

The cause of this tidal wave of prohibition is the concurrence of a number of different movements, making the present the psychological moment for temperance legislation. It must be admitted that a genuine temperance revival is sweeping over the South; nearly all of Tennessee is now dry; Alabama is seriously considering prohibition, and the Senate has passed a bill closing saloons at from 6 to 9 P. M., according to the size of the place. Texas has taken steps in the same direction, and other States are tending a similar way. Temperance meetings held in the interests of prohibition while I was in Atlanta attracted audiences and speakers that showed unmistakably the popularity of the cause. In working up and advancing this temperance sentiment the women have been influential.

Another thing that is helping on the movement is a reaction against the prominence of the liquor interest in politics; and as a result many who do not pose as temperance men are voting against ring rule—and for prohibition.

In Georgia another influence has considerable strength. The State now has a county local-option law and prohibition already prevails in most of the State—the rural portion. But much liquor has been surreptitiously sent into these places from the cities, and the present movement has an element of revenge—a desire to get even with the cities for interfering with the local affairs of communities that want prohibition.

Another factor in the case is the race question. Many young colored men in the cities are frequenting the saloons more than they ought, and growing up lazy and dissipated, a menace to the community, which also loses their labor.

There is a marked increase in the number of young colored loafers, gamblers and drinkers in the cities, although census statistics show a commendable increase in the property holdings of colored people when all sections are considered. While some negroes are becoming more industrious, more intelligent and more thrifty, there is also a marked movement in the oppo-

site direction. The seriousness of the situation in this respect is attracting much strength to the cause of prohibition. Many persons who are not allied with the temperance people are against the low dives frequented by indolent, vicious, brutal negroes, which unfit them for honest labor and make them ready for any kind of a disturbance. These places flourish more in the city than the country, and therefore are a motive for prohibition in the city as well as the country.

The labor question is even more acute in the South than at the North. I have heard many a tale of woe from Southern farmers and others at inability to get laborers. Hence Southern business interests are suppliants at the feet of the negro race for industrious, reliable help, and are willing to meet such more than half way. Alabama has a law forbidding emigration agents from taking negroes out of the State. In conversation with farmers, business men and professional men I never hear an unkind slur word about the temperate, reliable colored workman, only a desire to help and encourage him. I hear of no prejudice against him (except on social and political lines). I frequently hear words of commendation for that type of laborer. Several times I have heard such a remark as this in referring to some faithful employe: "He is sure of a home on my place as long as he lives."

There is a general complaint that much of the Southern labor is unreliable; that it may leave one in the middle of a job or a season; that some kinds of business carry twice as many names on the payroll as would otherwise be necessary but for a large amount of absenteeism. This condition and the saloon evil has led to drastic vagrancy laws in some States—laws which seem oppressive to one who does not see the full situation. But such laws do not bear harshly on the industrious. It is hoped that the prohibitory liquor laws will have a beneficial bearing on the labor question in the South—and that is the negro question.

#### INCREASING WEALTH.

[New York Herald.]

Aside from these notable fortunes the mass of wealth is pretty widely disseminated. Note the fact that one savings bank in this city now holds more than \$100,000,000 belonging to more than 150,000 depositors. Just now, owing to recent great extension of credits, the rate of interest—that is to say, the earning power of capital—is high, and these depositors and a million other savers of small means profit by it as well as the richest. This monetary stringency, however, is only transient. The general tendency is to a reduction in the returns from capital and an increase in the compensation of labor and its purchasing power.

The building of handsome homes for the rich raises the standard of dwellings for the entire community. The man of moderate means today has comforts that were not possessed by the millionaire of a past generation, and the immigrant laborer now lives better than a skilled mechanic of other times. Tenement "rookeries" and noisome cellars have given place to structures in which light and air are assured, and water, which was formerly carried in buckets from a distant pump or hydrant, now flows freely through the poorest apartment and fills the bathtub, where the inmates do not use it to store the family supply of coal.

Parks, playgrounds and recreation piers for the children, free libraries and reading-rooms, free lectures are at the disposal of the city dweller, with free educational facilities of the highest order and an unprecedented number of hospitals and benevolent institutions of every sort, many of

them supported by the persons against whom the gospel of discontent and hatred is being so assiduously preached. Life in the rural districts is no longer what it once was for the agricultural toiler. It is no longer lonely exile. The railway and the trolley car, the free delivery of letters and newspapers bring the farmer into touch with the life of the city or the town, and his wife—possibly not an unmixed blessing—into an easy communication with the department store.

Life for the mass of people in city and country has vastly improved and is constantly getting better. Under great economic laws, more powerful than any that a Legislature can enact, the share of the worker in the world's wealth is steadily increasing. Let us have a truce in the campaign for the dissemination of discontent.

#### CEMENT-MAKERS' PROSPERITY.

[Mid-Continent.]

The prosperity of Southwest cement plants and the dividend-paying possibilities of those industries is again demonstrated by the recent dividend declared on the stock of the Western States Portland Cement Co., located at Independence, Kan. Two hundred and five thousand dollars is now being distributed through the Citizens' National Bank of that place to stockholders who are fortunate enough to have an interest in the great concrete works at Independence. The works have been in existence a little over a year, and over \$400,000 has been earned by the plant and given to the owners.

The company has recently made extensive improvements and additions to its plant, including a great steel warehouse in which it can store 200,000 barrels of cement if car shortage should at any time in the future prevent shipments. The company, besides the dividends distributed to its stockholders, has accumulated a surplus which places them in an enviable financial position. It is stated by a report of the company that the concern has earned a net profit on its cost of over 50 per cent., or in other words, it has earned more than half of its original cost in a little over a year's time of operations.

The rapid increase in the demand for Portland cement and the wide margin between its cost of production and selling price will make that industry to investors a very profitable field in which to invest money. With careful and judicious managers at the head of the concrete manufacturing plants their earning power will be greater for many years to come on the capital invested than the same amount of money could earn if invested in any other direction, and it would seem from present indications that profits which come from the manufacture of cement will in the future increase instead of diminish.

The rapid decrease in the supply of lumber, and the consequent increase in price augments the quantity which concrete enters in every form of construction work. It was but a few years ago when builders of railroads hardly considered cement as an item of cost when calculating the supplies to be purchased for construction work; now its cost and availability is one of the first things considered. If the proposed road runs through a mountainous section, cement is one of the chief matters to be taken into account. Culverts, drains, retaining walls, bridges, all must have cement provided before work on them can be commenced.

#### LEARNING ONE'S COUNTRY.

[Boston Transcript.]

Congested as the ocean steamers have been this year, in spite of the largely increased accommodations, not all Americans with full pocketbooks and free choices

before them are making the European tour. The travel record is being broken at home as well as abroad, especially in the far western portion of the country. Perhaps it has been somewhat late in opening upon the Atlantic coast, owing to the lateness of the season, though for the last month it has been rapidly making up lost time; but on the Pacific side, tourists are flocking in unprecedented numbers. The Southern Pacific Railroad people report that summer resort and camping travel in California is the largest in the history of the State. But the other attractions of that great section, noted for its magnificent scenery, are being as generously patronized. The mountains and the hot valleys, the national parks and the water resorts are thronged with visitors. To accommodate the overflow the various through lines have in active service all their passenger equipment not required for regular trains, and the steamboats and coast steamship companies have all the passengers they can accommodate. The movement is a healthy one, and it is also one that in its reflex action will benefit both sides of the country. It is not only a sign of prosperity, but an indication that Americans are taking a larger interest in the wonderful attractions of their own land.

#### THE SOUTH AND RATES.

[New York Commercial.]

During the last quarter of a century the South has been the scene of great activity in railroad building. In 1880 that section had only 21,176 miles of railroad track, while the balance of the country had 72,001 miles. Last year the South had 66,608 miles, while the balance of the country had 150,733. In 26 years the South had gained 215 per cent., while the balance of the country gained only 109 per cent.

The anti-railroad agitation which, when taken up by the Federal Government, became more active in nearly all the States, will check railroad building in all sections. This will be more manifest in the South than in most parts of the country, because the railroads there, to a considerable extent, have discounted future requirements in railroad construction, and because the agitation for cheaper passenger fares is more nearly universal in the South than elsewhere.

To a great extent this is a play of the politicians. The masses of the people are little benefited by cheaper passenger fares. Generally speaking, those who travel are able to pay for it and the saving derived from legislation of this kind will benefit the rich ten times as much as the poor. The benefits from freight reduction would be diffused among all, but this would not furnish politicians with opportunities for grandstand plays. The poor man who would ride 100 miles a year on railroads can see that a reduction from three to two and a quarter cents per mile would save him the magnificent sum of 75 cents, and he does not know that the average family of five is paying \$100 a year freight. The bills are not presented to him. They are paid by the merchant and, with an additional sum for profit, are charged up by him on the goods he sells.

#### MINERALS NEAR AUGUSTA.

[Augusta (Ga.) Chronicle.]

The announcement by Secretary W. J. Moore of the Chamber of Commerce that many rich mineral deposits had been found adjacent to Augusta, though scarcely a surprise to the well-informed, nevertheless comes as cheering news. Mr. Moore has been engaged with a prospector of note in investigating these ore indications, and has located several very promising metaliferous districts. It has been long asserted that iron ores were to be found in paying

quantities in this immediate vicinity, and now the rumors have received confirmation of the most desirable kind. In addition to this comes the report that plenty of excellent lime and fuel deposits sufficient to make the iron ores a paying proposition have been located in close adjacency to the ore beds. The significance of this cannot be overestimated.

It is stated that these ores are not in any one direction, but lie on several sides of the city's territory. It is earnestly hoped that these reports are well founded, and that the further announcement of the secretary to the effect that steps are being taken looking to a development of various properties will soon be followed by the statement of accomplishment. Faith in Augusta's future is well founded, and such news items as the one we refer to here prove how great the city is destined to become.

#### FOR THE GULF COAST.

[Wall Street Summary.]

Vigorous efforts are being resorted to in the Gulf counties of Alabama, Mississippi and Florida to improve and develop their resources and populate their territory. Of these there are two in Alabama, three in Mississippi and seven in Florida, containing 13,114 square miles, or 8,392,800 acres, and only 260,000 people. Indented with bays and natural harbors, lavish in fisheries and crops, this stretch of land fairly reverberates with its own emptiness.

The dread of disease keeps settlers from this section. To attract residents thereto, silence criticism and exploit the Gulf counties, an organization known as "The Gulf Coast Development Association," has been instituted, comprising representative business men of these three States. In a recent address at Mobile, Ala., G. Grosvenor Dawe, president of the association, outlined the possibilities that systematic endeavor by this organization may realize. Through a similar movement was Southern California developed; also, Oregon, Colorado and Washington.

A publicity campaign, advertising the advantages of the Gulf counties, for settlers, and for agricultural and industrial purposes, by newspaper notices and illustrated articles was advocated, and beneficent results promised. This is facilitated by several committees, such as, committee on railroads, electric railways, fisheries, farmers' organizations, manufactures and trade, town improvement, education, immigration, internal improvement and legislation, which, in their respective spheres, labor to interest capital and settlers to locate in the Gulf counties.

Such a campaign as that entered upon by this body, it is believed, will turn the tide of population and enterprise toward the Gulf coast within the next three years.

#### CANE AND IRRIGATION.

[Galveston (Texas) News.]

Mr. Lon C. Hill, one of the leading citizens of the Rio Grande valley in the section known as the Brownsville country, was a visitor in the city several hours yesterday. Mr. Hill is one of the men who are making the Brownsville country blossom as the rose. He is interested heavily in a large number of big enterprises that have for their purpose the utilization of the rich soil of the Rio Grande valley, and the work has only begun. He declared yesterday that between \$2,000,000 and \$3,000,000 will be spent in the next two years in the erection of sugar factories, irrigation plants, etc., not mentioning what will be spent in the cultivation of the lands.

Mr. Hill is interested in the Ohio & Texas Sugar Co., a company whose leading spirit is Mr. P. E. Blalack. This company has some 3000 acres which will be



put into cane this winter. The company owns a large irrigation system, the source of supply of water being the Rio Grande river, and is now erecting a sugar factory to cost between \$350,000 and \$400,000.

Mr. Hill individually is undertaking probably the largest similar enterprises ever attempted by one man. He owns 52,000 acres lying along the Rio Grande valley in Cameron county, and he is now building an irrigation system to water this immense tract. The main canal will be 20 miles in length, while there will be another 20 miles of main laterals, not to mention the innumerable laterals branching out from the main laterals. Mr. Hill's plans are also to erect a big sugar factory. He now has 1500 acres of cane under cultivation, and expects to increase the acreage to 5000 next year.

Mr. Hill says that he has been interested in the raising of sugar-cane for several years, and is convinced that there is no section of the United States that can begin to compare with the Rio Grande valley as a natural cane country.

"I have been investigating cane culture for several years," he said, "and there is only one place in the world that equals the Rio Grande country, and that is a small tract in the Hawaiian Islands. Our cane surpasses the Cuban product and is far in excess of the Louisiana product. The Rio Grande valley in the future will be the great sugar-producing section of the country."

Mr. Hill says that much development work is going on in fruit culture. He says that oranges, figs, grapes and other fruits raised in California are being successfully produced, and that the country is destined to be a great fruit-producing country in the not distant future. Its possibilities as a truck-producing country are already known, he says, and he called attention to the enormous profits that are being made in the growing of truck. He mentioned one man, a neighbor of his, who made \$4000 off nine acres of onions this year.

#### ERA OF HIGH PRICES.

[Pittsburg Dispatch.]

France is making the complaint that the cost of living has increased beyond reason. It was at first confined to populous localities, but has now become general. Probably its effects are brought to general attention more prominently in France than in other nations because the two classes that are most radically pinched by it—the wage-earners and the people of small fixed incomes—constitute large and positive classes in French politics.

Nevertheless, the conditions of which France complains are general. The average advance of prices is world-wide. In the United States the bulk of the people find their wages or gains increased in equal proportion to the enhancement of prices. But those whose incomes are fixed and the producers whose commodities have not advanced in proportion to the general appreciation find this result of prosperity a decided drawback.

It is generally and probably correctly adjudged that the chief cause of the advance is really a depreciation in the price of gold, due to its greatly-enlarged production. Trade combinations have taken advantage of the circumstances no doubt. But if the trusts were the single great cause the enhancement should be confined to the trust staples, which is by no means universally the case. Activity in trade is not a cause of general enhancement, though it may be attendant on it. We think it fairly indicated that the principal cause of the rise in prices is the increase in production of gold, which leaves the dollar with a purchasing power measured in other commodities materially less than it was 10 or 15 years ago.

Of course, if that is the true theory, the

hardships of the rise in prices are due to the transition stage. Market commodities have readily shown the change. Wages may have adjusted themselves to it to some extent, though not entirely. Fixed incomes have hardly responded to it at all. If the world is now conforming itself to a reduced monetary standard, wages, interest and incomes must eventually advance equally with prices and profits.

#### NEW YORK'S DESERTED ACRES.

[New York World.]

New York State reported 170,621 farms in 1850. Only two other States reported over 100,000 farms, and they were Ohio, 143,807, and Pennsylvania, 127,577. In 1900 New York, with 226,720 farms, stood seventh in a list of 15 States reporting more than 200,000 farms.

Nine States reported in 1899 farm products valued at more than \$200,000,000. New York was fourth on the list with \$245,270,600, leading Texas by nearly \$6,000,000. The gross farm income of nine States exceeded \$150,000,000 that year, and New York, with \$181,841,420, was fifth on the list.

These figures represent the glowing side of a picture. Details for the dark side are these: That even the high reports of 1900 for New York show a discouraging fall from conditions of the early 80s; that the number of males engaged in agriculture in this State fell off 25,000 in 1890-1900; that the National Department of Agriculture has just reported in New York 12,000 abandoned farms and a menacing decrease in land values.

There is no trouble with the acres in the State. They are fertile as ever. The orchards are as good as when in 1902 they put New York at the head in apple production. Migration to the West has done part of the mischief of rural depopulation; the lure of the cities has done more. Villages and school districts have grown poorer, while certain professions and a congested urban society have grown not certainly richer.

There is to be a convention to consider this subject of "the rural menace." Better yet, a progressive campaign of education is to be instituted. The lessons should be well taught of the telephone, the trolley and the automobile, which are daily making the farmer less isolated and country life less monotonous. There is the advancing gospel of good roads. In every possible way opportunity should be pointed out to the men who have the "back to the land" impulse in its rational, wholesome form.

#### AWAKENING TO A MENACE.

[New York Times.]

The movement begun in this State is part of a national movement of exploitation of immigrants for political purposes. The Southern organs of public opinion, which have at heart the agricultural and labor problems of the South, are quick to see and to point out the partisan uses and abuses to which the new immigration law is subject. The most praiseworthy provision of the new act—were the powers it confers not to be taken advantage of for colonizing doubtful States—is that creating the Division of Information as an adjunct to the Executive Department of Commerce and Labor, "to promote a beneficial distribution of aliens admitted into the United States among the several States and Territories desiring immigration." Since it became operative, on July 1, the chief of the division, Mr. Terence V. Powderly, formerly grand master workman of the Knights of Labor, has addressed circulars asking the Governors of all the States and Territories and the executive officers of national labor organizations for general data upon labor conditions and the need of immigrants, adding:

"If you keep us informed of strikes, lockouts, blacklists, boycotts or the probable coming of the same, we will know how to act should applications be made to send laborers to a locality where industrial conditions are unsettled."

Of Mr. Powderly's outgiving the Southern MANUFACTURERS' RECORD says:

"It menaces both employers and employees. It reveals the innate potentialities for evil in acquiescence in the theory that the Federal Government shall have anything at all to do with the distribution of immigrants. \* \* \* The project is an assertion that the Federal Government, in its Executive Department, is to attempt to decide what a beneficial distribution of aliens may be. That decision might be that it would be beneficial for the Division of Information to expedite the movement of a mass of aliens to a locality where a strike was under way for the purpose of breaking that strike; that it would be beneficial to remove a mass of aliens from another locality for the purpose of breaking some industry there, or that it would be beneficial to a party in power in the General Government to turn one section of the country into a dump for a class undesired in another section of the country threatening to be influential at the polls against the party in power if such relief were not given by the General Government."

The obstacle to the distribution of aliens in this country is about to be overcome. The President's Immigration Commission, which has traveled in Europe and gained the necessary information, will recommend a plan to the next Congress to control the destinations of immigrants before they land on these shores. European stations are to be established, and American consular agents are to be sent inland to advertise the attractions of particular localities and, presumably, to offer such paternal inducements as the needs of the Administration may make feasible.

#### COOLED BY HOT AIR.

[Harper's Weekly.]

There is a great demand throughout India, as well as in all other tropical countries, for some sort of fan that will distribute a great deal of cool air at a low cost of production. A German firm has recently introduced in Bombay a portable fan which is operated at about one-fifth the cost of electric fans.

The fan is propelled by a hot-air engine, the heat being generated by a kerosene lamp which holds about one quart of oil, sufficient to keep it running for over 24 hours. To the lamp is attached a small glass chimney which fits into a larger metal chimney connected with the engine. Upon the top of the engine is hung the fan, similar in shape and size to the ordinary electric fan, whose speed is governed by the size of the flame; that is, to reduce the speed the flame is turned down, and to increase it the flame is turned up. The whole outfit weighs about 30 pounds, and sits upon a small stand, raising the level of the fan proper to that of an ordinary desk. It is fitted with handles, and can be easily moved to any portion of the room or house desired.

If American manufacturers can produce a similar article, with perhaps a few improvements and at a smaller cost, an immense field will be found for its sale, for this is not necessarily limited to India, but would include every hot country in which white people are compelled to live.

The task of diverting at the cost of \$200,000 the course of Appomattox river for the purpose of preventing obstruction of the harbor of Petersburg, Va., is nearing completion.

Subscribe to MANUFACTURERS' RECORD. \$4 a year, or six months for \$2.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### THREE ELECTRIC LINES.

Greenville, S. C., a Center of Railway Activity—Franchises Are Granted.

[Special Cor. Manufacturers' Record.]

Greenville, S. C., August 2.

There have been still further interesting developments in the interurban electric railway situation in this section of the State and the sudden popularity into which Greenville has recently sprung as a point of entry.

Three separate and distinct franchises have been applied for and three have been granted. The South Carolina Public Service Corporation, proposing to include this city among a number of others in a comprehensive network of lines originating in Charleston and belting the Piedmont region, has obtained permission to enter Greenville. The Anderson Traction Co., now controlled by Mr. E. W. Robertson of Columbia and associates, with a line just placed in operation between Anderson and Belton, in addition to the Anderson city lines, has also been granted a franchise, Greenville being the ultimate terminal point. Mr. H. H. Prince of Greenville and others, proposing to build to Williamston, S. C., are the third parties holding a franchise. Naturally, speculation has been rife as to the plans of these competing propositions, and the public has been awaiting developments with interest.

Mr. H. H. Prince now informs your correspondent that he has solved the problem of entrance to the city by an agreement with the Greenville Traction Co., which arrangement gives his company exclusive privilege of using the Greenville Traction Co.'s tracks, with other concessions, from the city limits to the corner of Main and Washington streets, the center of the city. He advises that work on the line to Williamston, a distance of about 20 miles, will be begun almost immediately, and that he hopes to have cars running in 12 months. A charter has been granted.

Mr. Prince's organization is the Greenville Interurban Railway Co., with capital stock of \$100,000, all paid in. The officers are: H. H. Prince, president; A. A. Gates of Hendersonville, N. C., vice-president; C. C. Good of this city, secretary and treasurer; directors, the above-named gentlemen, with G. E. Coughlin of Anderson, S. C.; W. F. Neal of Birmingham, Ala., and O. K. Mauldin of Greenville. Mr. O. K. Mauldin has been chosen attorney. The proposed route of the Greenville-Williamston line will take in Piedmont and Pelzer, which, with Williamston, form a chain of three thriving mill towns, with rich intervening territory.

Mr. Prince also states that Eastern capitalists have promised funds for the extension of this line from this city to Spartanburg, a distance of about 30 miles, and that he, with Messrs. A. A. Gates and C. C. Good, have applied for a charter that will empower the building of that part of the road. He advises that the agreement with the Greenville Traction Co. includes entrance to the city over that company's tracks for the Greenville & Spartanburg Railroad Co.'s line also. All of the lines under contemplation are to be equipped for both passenger and freight traffic.

It has been announced that the Anderson Traction Co. has no other idea than to come to Greenville. Its route would appear to parallel that of the Greenville Interurban Company, it is said—certainly from Williamston to this city. Just how the plans of the two companies will work out so that each can fulfil its objects remains to be seen. Each has a franchise,

while one has an apparent advantage in its agreement with the company already operating here. Whether or not these developments will affect the plans of the South Carolina Public Service Corporation is not known, although representatives of that company have stated that it would hardly be in competition with lines of a local nature, and that all it seeks is permission to pass through such towns as it would touch in its way over the State.

However the end may be obtained, the building of an electric line to connect the two cities of Anderson and Greenville will be the fulfilment of a dream that has long been entertained. By reason of the splendid territory to be traversed and the size and importance of the two terminal points the project would seem to promise financial success to whatever promoters can put it through.

JOHN WOOD.

### NEW RAILWAY PLANS.

#### Several Companies Lately Chartered, Some of Them With Extensive Projects.

Among the new railroads recently proposed are the following:

The Great Southwestern Railway Co., chartered at Guthrie, O. T., with \$40,000,000 capital to build a line from St. Louis, Mo., to El Paso, Texas, 1200 miles, via Salisaw and McAlester, I. T., and through Comanche county, Oklahoma. The incorporators are H. P. and R. B. Moseley of Muskogee, A. I. Gibbs and Peter Deichman of Wagoner, John B. Yanger and L. C. Donica of Oklahoma City.

The McAlester Southwestern Railroad Co. will, it is reported, apply for a charter in Oklahoma to build a line from a connection with the Iron Mountain Railway, near Salisaw, I. T., to a point on the Red river in Comanche county, Oklahoma, 250 miles; capital \$5,000,000; estimated cost of road \$4,500,000. Among those interested are A. S. McKenna, C. E. Dawley and Dr. E. N. Allen of McAlester, I. T., with Oklahoma parties. The McAlester Chamber of Commerce is reported back of the enterprise, and the road from McAlester to Salisaw is to be built immediately with McAlester capital.

The Minneapolis, Kansas City & Gulf Railway Co. is reported chartered in Oklahoma to build a double-track electric railway from Minneapolis, Minn., via Des Moines, Iowa; Kansas City, Mo.; Wichita, Kan.; Guthrie and Oklahoma City, O. T.; Dallas, Waco and Houston, Texas, to Galveston, Texas, with branches to Topeka, Kan.; Omaha, Neb.; St. Joseph, Mo., and Lawrence, Kan. The Northwestern Securities Co. of Minneapolis is fiscal agent, and C. B. Holme, formerly president of the Chicago City Railway, is chairman of the board of directors.

The Russellville & Ozark Mountain Traction, Light & Power Co. has been incorporated at Pine Bluff, Ark., to build, acquire, maintain and operate interurban electric railways from Russellville, Ark., to other cities and towns in that State; also to supply and sell water; to manufacture, supply and sell electricity, and to deal in timber, coal and mineral lands, as well as other real estate; capital \$250,000, of which \$150,000 has been subscribed. The incorporators are Adam J. Robinson, president; J. C. Wilson, vice-president; James Gould, secretary; W. H. Langford, treasurer; I. Reinberger, Ben. Robinson and others.

The Prescott, Reader & Fordyce Railway Co. has been incorporated in Arkansas with \$500,000 capital. It has a road in operation from Reader, in Ouachita county, westward to Lyda, six and one-half miles, and is to be extended to Prescott, Ark., 24 miles, connecting with the Iron Mountain and also with the Prescott & Northwestern railroads. When this is

completed it is proposed to extend from Prescott to Fordyce, 50 miles. The incorporators are W. B. Ferguson, president; S. C. Bossinger, vice-president; J. A. De-faut, secretary; George W. Rogers, treasurer; A. R. Powers, Henry Hazel and J. T. Murphy.

The South Memphis Traction Co. has been incorporated at Memphis, Tenn., with \$50,000 capital. It will build three lines in the southern part of the city, two of which will run from Memphis to South Memphis, while the other will be a cross-line. The incorporators are W. E. Gage, K. D. McKellar, James F. Hunter, W. G. Thomas and C. W. Edmonds.

### TERMINAL IMPROVEMENTS.

#### The "Katy" to Have Its Own Facilities at Fort Worth, Texas.

The Missouri, Kansas & Texas Railway Co., through George Thompson, attorney, has applied to the Board of Commissioners of Fort Worth, Texas, seeking approval of the company's plans for providing its own terminals in that city. It has been using the terminals of the Texas & Pacific Railway, but owing to increased business will be obliged to construct its own facilities. The proposed improvements will cost \$200,000, and Mr. Thompson is reported as saying that the plan had not been disclosed before this because the company desired to have everything perfected before making application for privileges. It is desired to close certain streets for the purpose of building yards, shops, roundhouses and other extensive improvements. Plans have been made for a freight depot that will cost about \$100,000.

The same company also proposes to greatly enlarge its freight yards at Dallas, Texas, about 35 miles east of Fort Worth. Coal chutes and roundhouses, it is said, will be erected. The freight depot is also to be enlarged.

### New Equipment, Rails, Etc.

The San Antonio & Aransas Pass Railroad is reported to have received bids for eight 10-wheel passenger locomotives, and contract is to be awarded soon. The company, it is said, will shortly purchase passenger equipment, besides 500 ventilated box cars.

The New Orleans Belt Railroad has, it is reported, received bids for two locomotives, one from the Vulcan Iron Works of Wilkes-Barre, Pa., and the other from the Baldwin Locomotive Works of Philadelphia.

The Atchison, Topeka & Santa Fe Railroad has awarded a rail contract of 10,000 tons to the Pennsylvania Steel Co., and it will be filled at the Maryland Steel Co.'s plant, Sparrows Point, Md., to be delivered next year.

The Missouri & North Arkansas Railroad will, it is reported, establish a motor-car service from Seligman to Eureka Springs, Mo. A car with a capacity of 52 passengers and also containing a smoking compartment and a baggage-room is to be provided.

The Atlanta & West Point Railway will, it is reported, build 40 box cars and 20 flat cars at its own shops.

The Galveston, Houston & Henderson Railroad is reported to be in the market for two switching engines.

The Baltimore & Ohio Railroad is said to be contemplating the purchase of more cars and locomotives.

The Mobile, Jackson & Kansas City Railroad's equipment order will, it is said, include 400 box cars and 600 flat cars.

The Western Maryland Railroad is reported to be contemplating a purchase of freight cars.

The Illinois Central Railroad's equipment order includes 3000 steel underframe box cars of 100,000 pounds capacity each.

The Mississippi Central proposes to build 200 freight cars at its Hattiesburg shops. It has lately completed 600 flat cars.

The Fort Smith & Western Railway is to purchase a passenger locomotive.

The Virginian Railway has, it is reported, ordered 10 steel conveyor cars from the Atlas Manufacturing Co. of Pittsburgh. They are 60 tons capacity and are electrically operated.

The Atchison, Topeka & Santa Fe Railroad is reported to have let a contract for 17 consolidation locomotives to the Baldwin Locomotive Works.

### Little Rock & Pine Bluff.

Mr. J. M. Rose writes from Little Rock, Ark., to the MANUFACTURERS' RECORD as follows: "The interurban line to Pine Bluff was incorporated under the name of the Little Rock & Pine Bluff Traction Co., capital \$1,000,000. It proposes to run from Little Rock to Pine Bluff on the north side of the Arkansas river, with a branch to Stuttgart, Ark., a total length of probably 70 miles. The officers are: J. J. Fiske, Chicago, president and general manager; W. H. Langford, Pine Bluff, vice-president, and J. M. Rose, Little Rock, secretary and treasurer. The country to be traversed is the Arkansas valley, and we intend to haul passengers and all the freight in the valley. We have not yet selected our engineer, but will probably have a corps in the field in the next 20 days."

### El Reno Street Railway.

Mr. J. W. Maney of Maney Bros., contractors, writes the MANUFACTURERS' RECORD from Winnemucca, Nev., concerning the El Reno Railway Co. of El Reno, O. T. He says that the intention at present is to build two miles of street railway in the city of El Reno. Work on this will commence September 1, and these two miles will be completed and street cars running by January 1, 1908. The interurban lines will be built some time during 1908. No definite plans have been made. The directors, officers and owners of this railway are J. W. Maney, John Maney and Henry Schafer. An order for steel, cars, ties, etc., will be placed soon.

Mr. Maney adds: "We are now building 250 miles for the Western Pacific in Nevada."

### Illinois Central to Birmingham.

The Illinois Central Railroad is expected to complete its Birmingham extension by September 1. The route to Birmingham is from a connection with the Illinois Central's main line at Jackson, Tenn., over the Mobile & Ohio Railroad, 47 miles, to Corinth, Miss.; from Corinth to Haleyville, Ala., 80 miles, over the new line which is now being finished, while from Haleyville the Northern Alabama Railroad will be used to Jasper, Ala., 41 miles, and from Jasper to Birmingham the Frisco line will be used for an equal distance. The new construction was built in Mississippi under the name of the Mississippi & Alabama Railroad, and in Alabama as the Alabama Western.

### Denial of a Rumored Deal.

President George W. Stevens of the Chesapeake & Ohio Railway Co. writes from Richmond, Va., to the MANUFACTURERS' RECORD:

"The rumor that the Chesapeake & Ohio Railway Co. has purchased the Iron Mountain & Greenbrier Railway is untrue. This company has no intention of purchasing that property."

A recent press report from West Virginia said that it was rumored that the road had been purchased, and that it would be extended.

### Railroad Notes.

The Virginian Railway is reported to have operated the first passenger train over its line from Victoria, Va., to Norfolk and the Jamestown Exposition, a distance of 125 miles.

A dispatch from Anniston, Ala., says that R. L. Rand of Fort Smith, Ark., has been appointed general manager of the Anniston Electric & Gas Co., and he has assumed his duties.

According to a report from Charleston, S. C., new interests have taken up the proposition to build an electric railway from Charleston to Summerville, S. C., and it is expected that the work will be completed.

The new union station at Lexington, Ky., has been put in service. It is used by the Chesapeake & Ohio, the Louisville & Nashville and the Lexington & Eastern railroads. It has a frontage of 243 feet, is two stories high and is built of yellow brick, with a dome. The interior finish is marble.

Mr. J. Kruttschnitt, director of maintenance and operation Southern Pacific Company, writes from Chicago to the MANUFACTURERS' RECORD saying that he knows nothing whatever of any project to extend the lines from the west side of the Mississippi river into Natchez, Miss. This denies a recent press report.

The Georgia & Florida Railway Co., which is to build the new north and south line in Georgia for which financial arrangements were lately completed, has amended its charter at Atlanta so as to increase the capital stock from \$1,000,000 to \$8,750,000, of which \$3,500,000 will be preferred and \$5,250,000 will be common stock.

According to a report from New Orleans the Frisco system will take over the line of the Colorado Southern, New Orleans & Pacific Railway on August 15. This is the new road between Baton Rouge, La., and Houston, Texas, and it is reported to have been completed with the exception of the bridge and trestle work at the Atchafalaya river, which is expected to be finished this month.

B. F. Yoakum and associates have, according to a report from Houston, Texas, secured possession of the Velasco, Brazos & Northern Railway, now called the Houston & Brazos Valley Railroad. It is rumored that an extension will be built from Anchor to Houston, 50 miles. It is further said that the St. Louis, Brownsville & Mexico Railway will use the line for entrance to Houston in connection with the Columbia Tap. It would connect at Houston with the Trinity & Brazos Valley Railway, which is about to increase its capital.

### New Oil Mill Proposed.

A report from New Orleans, La., states that the Goodwin Milling Co. of St. Louis, Mo., has purchased a site at Harvey, in Jefferson county, Louisiana, for the erection of a large cottonseed-oil mill. The Goodwin Milling Co. operates plant at St. Louis, and does an extensive export business through New Orleans. In order to be more convenient to this port, it is stated that the proposed plant will be established, but definite details have not been announced. It is understood that the erection of the plant will involve an expenditure of about \$100,000.

The catalogue of the North Carolina College of Agriculture and Mechanic Arts at West Raleigh shows that while the great mass of students of the last session were North Carolinians, others came from Virginia, Kentucky, Illinois, Maryland, South Carolina, Pennsylvania, New York and West Virginia.



## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

### Wachovia Mills—A 100,000-Spindle Plant.

Two weeks ago the MANUFACTURERS' RECORD stated that the organizers of the Wachovia Mills of Chattanooga, Tenn., were planning to undertake the construction of their proposed mill on Waldens Ridge. Further details have been obtained from the company's general manager, who telegraphs from New York to the MANUFACTURERS' RECORD that the cotton factory will be built for an equipment of 100,000 spindles and 3500 looms and will have a large plant in connection to finish the textile products manufactured. It is also proposed to construct a railroad bridge across the Tennessee river in order to provide an outlet for the proposed coal developments of the Chattanooga Company, Ltd., which controls 40,000 acres of land in that territory; also to furnish transportation to various coal-mining companies operating or preparing to operate along the base of Waldens Ridge, including the Montlake Coal Co. at Daisy, the New Soddy Coal Co. at Soddy, the Hamilton Coal Co. at Retro and the Grand View Coal & Timber Co. (controlling 6500 acres of coal and timber land) at Signal Point, this company being owned by Pennsylvania and Ohio capitalists. It is understood that Northern capitalists have large financial interests in the Wachovia Mills. The company was incorporated last year with a capital stock of \$1,500,000 by Messrs. W. I. Young, Laven M. Thomas, Battle McAlester, Chas. W. Rankin, J. H. Thomas and T. T. Rankin, all of Chattanooga. Mr. W. I. Young is the general manager, and is now in the North conferring with the interested capitalists, it is believed, relative to completing final plans for building the mill and probably forming a corporation to construct a railroad into the properties now owned.

### The Kannapolis Mills.

It is of interest to note that construction is progressing at Kannapolis, N. C., on the two big mills of which full particulars have previously been stated in the MANUFACTURERS' RECORD. These two plants will represent the investment of \$1,500,000 by the Cannon Manufacturing Co. of Concord, N. C., and the Patterson Manufacturing Co. of China Grove, N. C., J. W. Cannon, president of both corporations. The Cannon mill will include spinning-room, one story high, 125x600 feet; weave shed, 125x400 feet; bleachery, 75x200 feet; warehouse and finishing building, three stories high, 100x300 feet. Thirty thousand spindles and 900 looms will be operated. The Patterson mill will include a 125x581-foot structure, with 75x100-foot wing. Twenty thousand spindles and 600 looms will be operated. Contracts for erecting the mill buildings were awarded at \$350,000 to T. C. Thompson & Bros. of Birmingham, Ala. Mr. Stuart W. Cramer of Charlotte, N. C., is the mill architect and engineer in charge, and he has awarded contracts for the textile machinery. The companies are also building 75 operatives' cottages, and more will be erected. They are providing general town facilities, such as water-works, electric-lighting plants, improved streets and sidewalks, sewers, store buildings, artificial

lake, theater, 75,000-gallon tank for fire protection, etc. The cotton mills will be driven by electricity furnished by the Southern Power Co. of Charlotte, N. C., which expects to be supplying Kannapolis early in 1908.

### Chapin Manufacturing Co.

Mr. J. A. Blackwelder of Newberry, S. C., and associates will build mill for spinning cotton yarns, as reported last week. They have organized the Chapin Manufacturing Co., and will locate the plant at Chapin, S. C., installing 3000 spindles to begin with and increasing to 5000 spindles in the future. Nos. 12 to 22 high-grade hosiery yarns on cones will be manufactured. The company has a capital stock of \$60,000, and will begin construction by October 1. Mr. J. J. Blackwelder is president of the Ashley Manufacturing Co. of Newberry, which will consume the yarn mill's output, and B. B. Reid, superintendent of the company, is among those interested in the yarn mill. The Ashley plant will operate a night force of operatives beginning October 1 in order to double its present output, which is 4000 pairs of half-hose. Mr. Blackwelder states that the entire production of the Ashley mill is sold through 1908.

### Turner Mills Co.

Organization has been effected by the stockholders of the Turner Mills Co. of East Monbo, N. C., reported in the MANUFACTURERS' RECORD of August 1 as incorporated with a capital stock of \$250,000. Messrs. A. A. Shuford, C. M. Steele and W. W. Turner are the executive committee. Mr. W. D. Turner is president and C. M. Steele, vice-president, both of Statesville, N. C. The company has purchased a water-power property, which will be developed to furnish 350 horse-power for operating the proposed mill. This mill will be two stories high, and of sufficient size to accommodate 10,000 spindles, and cotton yarns will be manufactured. Operatives' cottages will be erected and village improvements will be provided. Mr. C. H. Lester has been chosen superintendent of construction. The mill site is six miles from Troutman, N. C., on the Southern Railway. Thread will be manufactured. Address the Turner Mills Co., Box 175, Statesville, N. C.

### St. Pauls Cotton Mill Co.

The MANUFACTURERS' RECORD of July 11 reported the incorporation of the St. Pauls Cotton Mill Co. of St. Pauls, N. C., for the purpose of building a 5000-spindle yarn mill. Last week the company's stockholders met and elected directors and officers. Mr. L. Shaw is president; J. M. Butler, vice-president, and A. R. McEachern, secretary-treasurer. Messrs. McEachern, Butler and Shaw, L. A. McGeachey, T. L. Northrop, C. J. Cooper, J. F. Armfield, L. J. Johnson, J. F. Gilmore, J. W. Carter, J. W. Kanerr, G. B. McLeod and W. D. McNeill are the directors.

Mr. McNeill is of Fayetteville, N. C., and will probably be engineer in charge. The company has a capital stock of \$100,000.

### Harriss Manufacturing Co.

The Harriss Manufacturing Co. of Rock Hill, S. C., has begun the construction of additional building, which will be equipped for manufacturing collar pads, a new department to be installed at the company's plant. Machinery for manufacturing the pads and the supplies necessary are wanted, and quotations from manufacturers are invited. The company was organized some weeks ago, and has been manufacturing cotton yarns. Mr. Wm. H. Harriss is president.

## Propose to Manufacture Handkerchiefs.

It is proposed to form a company at Durham, N. C., to establish a plant for the manufacture of handkerchiefs. Messrs. Giles & Sykes, First National Bank Building, Durham, are interested in the enterprise, and are desirous of having information as to the handkerchief industry and estimates on the cost of machinery required.

### Blacksburg Knitting Mills.

The Blacksburg Knitting Mills of Blacksburg, Va., has been organized with a capital stock of \$35,000 and will establish hosiery knitting plant. Messrs. J. H. Woolwine and M. F. Slusser have been elected president and secretary-treasurer, respectively. Messrs. Woolwine, Slusser, C. F. O'Brien, W. O. Frith, J. K. Grose-close and L. M. Hale are the directors.

### Textile Notes.

Mr. W. H. Arnold of Lexington, Ga., is reported as to build a knitting mill, installing water-power plant to drive the machinery.

Messrs. George Bros. of Bessemer City, N. C., will build a cotton mill, as reported last week, but will not arrange details or begin construction until next year.

Messrs. C. S. Taylor and A. G. Caruthers of Fort Valley, Ga., propose to organize the Fort Valley Yarn and Hosiery Mills with a capital stock of \$10,000.

It is understood that the Commercial Club of Abbeville, S. C., is interested in plans being formulated for organizing another cotton-mill company in that city.

The Bloomfield Manufacturing Co. of Statesville, N. C., now operating 4700 spindles, will increase its equipment about 50 per cent. It has awarded contract for erection of a 90-foot addition to present buildings to J. O. Gaither.

Messrs. E. L. Gaither, J. L. Sheek, T. J. Byers and others of Mocksville, N. C., are organizing a company with capital stock of \$50,000 to build a cotton mill. It is understood that more than half the amount required has been subscribed.

Messrs. J. Fred Houston & Co., 704 Provident Building, Philadelphia, Pa., are reported as to build another cotton mill in the South. They are now operating a factory of 5636 spindles at Cumberland, N. C., James B. Driver being their superintendent in charge.

It is understood that the Atlantic & Gulf Mills of Valdosta, Ga., has awarded contracts for additional new machinery to cost \$20,000, the equipment including carders, combers, speeders and other apparatus. The mill's output will be increased about 2000 pounds of yarn weekly.

The Dallas (Texas) Waste Mills has awarded contract for the erection of proposed 100x150-foot addition recently reported, after plans by Messrs. Hubbell & Greene. This enlargement will enable the company to increase its waste-manufacturing facilities, and contract has been awarded for \$8000 worth of new machinery.

The Brookford Mills of Brookford, N. C., has awarded contract to Messrs. Abbe & Edwards of Hickory, N. C., for construction of dam to develop power. This dam will cost about \$18,000, and is presumed the power will be transmitted by electricity for operating the mill machinery. Brookford mill now operates 23,000 spindles and 500 looms.

The listing of the property at Canton of the Champion Fiber Co. at \$500,000 is the feature of the increase of assessed values in Beaverdam township, N. C., from \$330,000 in 1906 to \$1,015,000 in 1907.

## MINING

### Proposed Graphite Development.

In a letter to the MANUFACTURERS' RECORD Dr. George F. Lee of Blacksburg, S. C., states that he has made a mineralogical examination of the country from Gaffney, S. C., to Grover, N. C., and found large deposits of graphite of various grades. There were about seven grades of the silicate graphite, ranging in color from deep black to light gray. With his partner, John M. Pollock, Dr. Lee states that he secured some of the graphite-bearing property and intends to organize a company for the purpose of establishing a plant. He will install impact pulverizers and separators, and expects to secure electrical power for operating the plant either from the Southern Power Co. of Charlotte, N. C., or the Electric Manufacturing Co. of Spartanburg, S. C. The property is located on the main line of the Southern Railway.

### Suitable for Portland Cement.

In a report to Mr. F. N. Lawton of the Huntsville (Ala.) Business Club as to the analyses of limestone and clay specimens recently taken from the vicinity of Huntsville, Dr. Eugene A. Smith, State geologist of Alabama, announces that both materials seem to be suitable for making Portland cement. This is certainly the case, he states, with the limestone, and very probably with the clay, but even if the specimens of clay taken is not the most suitable, Dr. Smith believes there would be no difficulty in getting shales in the vicinity of Huntsville that would meet all requirements. He reports that the limestone contains 96.7 per cent. of carbonate of lime and the clay holds 59.8 per cent. of silica, which percentages are representative.

### Purchases Coal Properties.

The M. B. Coal Co. of Charleston, W. Va., has purchased the holdings of the Cardiff Coal Co. on Armstrong creek, in Fayette county, West Virginia, for \$575,000, and will continue the development of the property. The transfer includes 2500 acres of coal lands in fee, a leasehold on 5250 acres and four mines in operation whose daily capacity is about 1800 tons. The purchasing company will open additional mines and install modern mining machinery, construct coke ovens, erect three stores and a number of dwelling-houses for its employees. Messrs. J. H. Nash of Charleston and Alfred S. Clarke of Providence, R. I., are interested in the enterprise. Mr. C. C. Sharp is the superintendent of the company.

### North Carolina Coal.

The two areas in North Carolina in which coal occurs are known as the Deep River and Dan River fields, from the two rivers which drain them. The coals are of the same geologic age as those of the Richmond coal basin in Virginia. The only productive beds in recent years are those in the Deep River district, in Chatham and Moore counties.

No coal production was reported to the United States Geological Survey from North Carolina in 1906. The output from the Cummock mines, which had decreased from 23,000 short tons in 1902 to 17,309 tons in 1903, to 7000 tons in 1904 and to 1557 tons in 1905, ceased entirely in 1906.

### Shipments from Joplin District.

For seven months of 1907 the total shipments of lead and zinc from the Joplin district exceed the shipments of the same period in 1906 by 10,309,070 pounds of lead and 50,698,620 pounds of zinc, with an increase in value of \$2,185,628. The

total value of shipments for the seven months is estimated at \$10,603,316.

### Mining Notes.

Shipments of Coal from Newport News, Va., during July amounted to 319,536 tons, making a total for the year up to August 1 of 1,986,899 tons.

Mr. James Harrison, a banker of St. Louis, Mo., and associates have purchased a large tract of land near Liberty, Texas, upon which they are investigating sulphur deposits.

Exports of coal and coke from Baltimore, Md., during July were 52,899 tons of bituminous coal and 341 tons of coke, the total value being \$140,277. These shipments show an increase of about 10,500 tons over shipments made in June.

Messrs. Edward O'Tolle, Howard N. Eavenson, F. D. Clifford, W. B. Hensel, L. E. Woods and A. E. Morgan of Gary, W. Va., and B. H. Powell of Tug have incorporated the Central Pocahontas Coal Co., with a capital stock of \$30,000, to operate coal mines in McDowell county.

The United States Geological Survey, through E. W. Parker, reports that the production of coal in Georgia in 1906 was 332,107 short tons, having a spot value of \$422,004. If the record for the last four years may be taken as an indication of future conditions, the coal-mining industry of Georgia is on the decline, for the production of the State has decreased each year since 1905, when the maximum output of 418,951 short tons was obtained. Compared with this the production for 1906 shows a decrease of 84,844 tons, or 20.3 per cent. The decrease from 1905 was 9017 short tons, or 2.56 per cent., and the decline in value was \$29,844, or 6.6 per cent.

### Growth of Fairmont District.

A recent issue of the Fairmont (W. Va.) Times comprehensively reviews the general industrial progress of that section and in an attractive way describes the conditions that make for its prosperity. Among other things reference is made to the many industrial enterprises located at Fairmont and its vicinity, as well as to its financial and educational facilities and natural resources.

### Cement Users' Convention.

The fourth convention of the National Association of Cement Users will be held at Buffalo, N. Y., next January 20-25. The old Sixty-Fifth Regiment Armory has been engaged for the exhibition, and it is probable also that the convention will be held in this building.

The Thornwell Orphanage at Clinton, S. C., has a technical school attached to it, and it is suggested that manufacturers of ironworking machines might find it to their advantage to add to the equipment of the school by gifts of their machines.

A press report from Waynesboro, Ga., says that W. R. Buxton of Girard, Ga., is working on a plan to establish an automobile line from Girard to Waynesboro, about 50 miles; also reaching several smaller towns.

Recently a shipment of 1000 tons of anthracite coal was made from New York to Galveston by boat and from Galveston to San Antonio by rail for use in the gas plant at the last-named city.

The value of the annual output of lumber mills along the Gulf & Ship Island Railroad in Mississippi is estimated at \$20,000,000.

H. E. Hershey, industrial agent of the Santa Fe system, is planning a campaign for a development of the textile industry in Texas.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### Cups in Turpentine.

Twenty million turpentine cups are used in the pine forests of the South to catch the flow of resin from the trees, and 7,000,000 or 8,000,000 are added each year. These simple-looking cups, which are not unlike flower pots in size and shape, indicate a rapid and highly important change in the American method of gathering turpentine, due to the need of economy in using all forest products and to the application of science in an old-fashioned industry.

The old plan of cutting deep boxes in the trees, in which turpentine collected after running down the scarified trunks, was universal until a few years ago. It was wasteful and destructive. Trees so mutilated survived only about four years. They might continue to live, and they usually did not fall for years, but their value as turpentine producers was at an end and their value for lumber was seriously lessened.

The cup and gutter were devised to take the place of the old wasteful method. No box is needed, and the trunk is left strong and but little injured. Small galvanized-iron gutters, attached in a simple yet secure manner to the tree, lead the turpentine from the scarified wood to the cup. The amount thus collected is greater than by the old method, it is of superior quality, and it commands a higher price. Further than this, the tree thus operated upon is productive about eight years, instead of four, as under the old method, and produces more each year. In other words, one tree during its productive period gives more than the former yield of two.

The cup and gutter method did not go into general use at once. Nor is it generally used yet. The majority of operators cling to what they have always known. But the millions of cups scattered among the pine forests from South Carolina to Louisiana are proof that the four or five years since the new method was introduced have made a great change in an important industry.

The world depends largely on Southern pine forests for naval stores. About half the product is exported. It is worth many millions annually. Turpentine supplies an enormous trade. America can hold this trade, but if it is to do so the valuable Southern pine must be cared for. It was this which led to investigations on the part of the Forest Service in the effort to economize in reaping the turpentine crop. Several turpentine operators were foresighted enough to welcome the work, and co-operation between these private interests and the Government foresters led to the introduction of the cup and gutter system.

The turpentine cup encountered prejudice, and at first overcame it slowly. The inventor found it necessary, with his associates, to buy a pottery to make the cups. Potters would not undertake the work. The article was new, was not in demand, and no one cared to take the risk of manufacturing it.

A veteran of the wheel and kiln, more venturesome than the others, at one time halfway consented to make the cups. He said he could turn out 100,000 a year. When told that it was a matter of millions of cups annually he cut negotiations short, said it was a dream of college men, and that he was there to talk business and not foolishness. That ended it with him.

A pottery was bought near Chattanooga, machines were installed which make 18 cups a minute each, and the cost per cup has been reduced from four cents, the price

when hand made, to one and six-tenths cents.

Manufacturing the cups was only part of the battle. Operators in the turpentine forests at the outset would not touch the article. Then, when a tract of pine was at length secured, a great deal of trouble was had in persuading the laborers to work with the new device.

The cups won the day. Laborers learned to like them, and operators took them up. The source of supply for naval stores, and for all other uses of turpentine and its products, both for this country and for others, is more secure. Pine forests will last longer, produce more turpentine and resin and the timber is better.

When trees are boxed, that is, cut deeply, they are weakened. Wind levels them, and they often decay before the arrival of the lumberman, who follows the turpentine operator. Fire attacks the notched trunks of standing trees, and large numbers are lost. The slight mutilation for the cups and gutters does not subject the trees to so great danger, and the lumberman finds them little injured.

### Building Progress Good.

According to building reports for July from Southern and Southwestern cities, operations in these sections were active during the month. In Jacksonville, Fla., permits were issued for 83 residences and business buildings, making a total of 7079 structures which have been erected in that city since the fire in 1901. Of this number, 6662 are frame buildings, the remainder being of brick and stone. The valuation of structures for which permits were issued in Birmingham, Ala., during the month amounted to \$159,595, and in Anniston, Ala., to \$26,256.75, including new buildings, alterations and repairs. In Nashville, Tenn., the valuation of building permits for the month amounted to \$181,876.50, an increase of \$23,119.75 as compared with the valuation for July, 1906. The aggregate number of permits issued in Louisville, Ky., was 211, representing a valuation of \$201,180. As compared with July, 1906, these figures show a decrease both in the number of permits issued and the valuation of the structures, due, it is said, to labor conditions in that city. In St. Louis, Mo., 190 permits were issued for brick structures to cost \$2,823,725, and 377 permits for frame structures to cost \$111,151. Building permits were issued in Baltimore, Md., for 207 dwellings to cost \$403,552, 12 factories and warehouses to cost \$202,935, one church and five stores. The total estimated cost of new improvements and additions was \$662,272.

### Gulf Coast Lumber Exporters.

The adjourned meeting of the Gulf Coast Lumber Exporters' Association was held at Mobile, Ala., last week, at which by-laws were submitted and approved and a motion adopted for the appointment of a committee from each port for securing new members for the association. A vice-president and director were elected for each port as follows: New Orleans, H. Forchheimer, vice-president; E. R. DuMont, director; Mobile, E. C. Ganahl, vice-president; K. Carter, Jr., director; Pensacola, W. J. Wittich, vice-president; G. Eitzen, director; Gulfport, B. B. Thayer, vice-president; W. W. Syfan, director.

Mr. Robert Hunter of Mobile is the president of the association.

### To Make Insulator Pins.

Mr. F. P. Catchings, electrical engineer of the North Georgia Electric Co., 144-146 Edgewood avenue, Atlanta, Ga., writes the MANUFACTURERS' RECORD that he is considering a proposition to establish a locust pin manufacturing enterprise in the South, and desires information regarding

the demand for locust pins, cost of manufacture, etc. He also wants to know where locust timber is most abundant, names and addresses of manufacturers of lathes for turning pins and other information that would be useful to him in his undertaking.

### Shipments from Jacksonville.

Shipments of lumber from Jacksonville, Fla., to foreign ports during July amounted to 960,654 feet of boards, deals, planks, joists, scantlings and timber. In addition there was one general cargo, together with three scows and 2001 bundles of shingles. The value of the shipments was \$72,004.50.

### Lumber Notes.

The Missouri & North Arkansas Railroad is reported to have purchased 200,000 feet of lumber from the Heber (Ark.) Milling Co. and 250,000 feet from J. H. Newell of Hiram, Ark.

The British schooner Muriel cleared from Wilmington, N. C., last week with a cargo of 76,000 feet of lumber for Port de Paix, Hayti, consigned by the S. & W. H. Northrop Lumber Co.

## FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

### Lumber for Italy.

Ditta Giacomo Cresta, Genoa, Italy:

"We are giving special care to the importation of timber and lumber, especially pitch pine, prime satin walnut, male oak, hickory, cedar, mahogany, white woods, etc. We work this special line of business either for our own, third account or in quality of agents. We would like to be put in direct connection with mills, and not with exporters. We also avail ourselves of the opportunity to ask you to whom might we apply for getting all the lumber and timber classifications as per United States rules, and a book showing the reduction of different lumber and timber measures in corresponding average."

### Hardware, Bolts, Wire, Sheet Steel.

Adrian Benoit, 538 Cortes street, Barcelona, Spain: "I would like very much to act as Spanish agent for some American factories making the following goods: Tinned and galvanized-iron wire, bolts of all kinds, sheet steel for building purposes and all kinds of goods in the hardware line. I have represented the Nicholson File Co. of Providence, R. I., and it will gladly give suitable references concerning me."

### Coal and Cotton Oil.

P. F. Bergasse, 299 Rue Paradis, Marseilles, France: "You will greatly oblige me with some first-class American coal exporters and cotton-oil producers. Should I become acquainted with exporters on your side who would be interested I am confident an important and paying business would be worked up."

According to statistics just published by Lloyd's Register, the merchant fleets of the globe now total 39,438,000 tons, or nearly 2,000,000 more than a year ago. Of this total, no less than 33,969,000 tons represent steam shipping, and 17,001,000 tons of it is under the British flag.

It is reported that the five delegates representing German textile interests at the Atlanta conference next fall will propose a system by which agent of the manufacturers will buy up cotton in the South before the harvest begins by advancing money to the growers.



## MECHANICAL

### Water: Soft—Hard—Softened.

By ARTHUR PENNELL.

[Written for the Manufacturers' Record.]

As it reaches the surface of the ground from the clouds, whether in the form of rain, snow or hail, water is absolutely pure save for such atmospheric gases it may have dissolved or dust that it may have encountered during its fall.

On reaching the ground it percolates through the soil until it encounters some impermeable stratum, along the surface of which it spreads until it finds an outlet to the surface of the ground at some lower level and issues in the shape of a spring.

Should the geological formation through which the water has percolated be of an insoluble character, such as granite or slate, the water on issuing will be as soft and pure as when it fell and constitute a soft-water spring.

Should the geological formation consist of material that is soluble in water the percolating water will dissolve some of it, and on issuing as a spring carry varying quantities thereof in solution.

Carbonate of lime, in its various forms and combinations, is probably the most widely-distributed material of the earth's crust. It is, consequently, very frequently encountered by the percolating water.

Carbonate of lime, however, is only very sparingly soluble unless the water is charged with carbon dioxide, which last, however, is constantly passing out from the interior of the earth. In water so charged carbonate of lime is far more soluble. The Mammoth Caves of Kentucky bear world-famous testimony to the solvent power of water when charged with carbon dioxide. The water issuing from the Mammoth spring must obviously carry carbonate of lime, etc., in solution. The same is true of all springs and wells in a limestone district or where lime salts are component of the underlying rock strata. Such water has received the appellation of "hard," in contradistinction to rain-water, which is called "soft."

These two expressions, "soft" and "hard," owe their origin to the different action these two kinds of water effect upon soap. Fifty grains of a good grade of soap will dissolve in a gallon of rainwater and on agitation will manifest itself as a lather on the surface. If one grain of carbonate of lime be added to the water and again agitated the lather disappears and the water is cloudy with lime-curdles formed by the combination of the fatty acids of the soap with the lime. Another 30 grains of soap must be added for the lather to reappear.

As for industrial purposes, laundry work, etc., the lather or suds are the all-important item. It is manifest that each grain of lime per gallon of water means a corresponding increase in the amount of soap required to perform any given duty. Soap is expensive, and the presence of lime-curdles in the water is very objectionable.

A convenient scale of hardness is obtainable by adopting as a unit the weight of soap necessary to dissolve in one gallon of water (rain or distilled) that, on agitation, a conspicuous, permanent lather may occur. The degree of hardness of any sample of water requiring 11 such units of soap to produce a lather would then be 10 degrees, as 10 units had been employed to neutralize the lime salts and the last produced the lather.

A gallon, however, is too unwieldy a volume for convenience. A miniature gallon of 70 cubic centimeters is much handier. A corresponding soap solution consists of one gramme of soap dissolved in 100 cubic centimeters of 35 per cent. alcohol. One cubic centimeter of this solution

for our miniature gallon of 70 cubic centimeters represents 50 grains to the actual gallon. The necessary apparatus for testing a sample of water to determine its hardness on the foregoing scale can be found behind the prescription counter of every drug store in the country.

It is matter of very general knowledge that if hard water from a spring or well be heated till it boils and be then permitted to cool down quietly a quantity of sediment will be found at the bottom of the containing vessel, and that the supernatant water is much softer. It was stated above that the solubility of the carbonates of lime, etc., depended on the presence of carbon dioxide. Boiling the water expels the carbon dioxide, when the carbonates, being no longer able to remain in solution, precipitate and settle out of the water.

The most familiar industrial example of heat as a water softener is to be found in steam-power plants, where there is exhaust steam at atmospheric pressure available for the purpose. The heater consists of a sufficiently strong vessel, either cylindrical or cubical, fitted with one or more tiers of pans that are readily removable. The exhaust steam generally enters near one end and out at the other. The cold, hard water is introduced into the topmost pan, overflowing into the next, and so on to the bottom. The water thus exhibits a very extended surface to the steam, which heats it by condensing thereon to approximately its own temperature. The carbon dioxide is immediately expelled from the water when precipitation of the carbonates that it had maintained in solution occurs. The precipitated matter adheres to the metal of the pans and the water leaves the heater at very high temperature, and, if it is caused to pass through filtering material, clear and bright. The pans are removed for cleaning periodically, the length of such period depending on the volume of water passing per hour and the amount of carbonates the water carried per gallon.

Another type now being put on the market by a Kansas City concern consists of a cylindrical shell mounted vertical, the exhaust entering at the side near the bottom and escaping from the top. The water is introduced in the form of a spray, jet-condenser fashion, falling through the atmosphere of exhaust steam into an easily removable funnel at the bottom. Easily removable connections convey the hot, turbid water to near the bottom of a settling tank. The precipitated carbonates accumulate at the bottom for periodical flushing, while the slowly ascending water, clarifying as it rises, reaches the outlet clear, bright and soft.

For general industrial purposes softening water by heat is too expensive, while it is seldom that it is desirable for the softened water to be delivered at such high temperature.

In 1842 Dr. Wm. Clark of Aberdeen, Scotland, patented his now famous process for softening water at normal temperatures. To him is due the credit of discovering that the carbonates owe their solubility to the presence in the water of carbon dioxide.

He suggested the use of just sufficient lime to combine with the free carbon dioxide, forming carbonate of lime. After such addition, the previously free carbon dioxide being absorbed, all the salts, owing their solubility to the free carbon dioxide, would precipitate and settle out of the water.

Like most inventors, Dr. Clark was far ahead of his time, and never realized a dollar from his discovery.

The lime process, however, for softening water seems to have been known to ancient civilizations, but lost and forgotten during the dark ages of early Christianity. Pliny

mentions it as having been in use in his time, while many centuries before Pliny we read of the prophet Elisha "curing" the waters of Jericho—II Kings; chap. 11.

Elisha must have been eminently successful, as biblical commentators assert that the angry mob of "children" that followed him out of Jericho with insults were water-carriers, with whose vocation of bringing water from the river Jordan into the city Elisha's water-softening process had much interfered.

They also assert that Elisha had been educated in the schools of the prophets, where he would have studied the "wisdom of the Chaldees."

To this most ancient and high civilization is probably due the original discovery. Archaeologists have recently discovered among the ruins of a Chaldean city the brick note book of a real estate agent of that epoch, which affords hope that further research may bring to light records of their views on physical science.

The amount of carbon dioxide per 1000 gallons, held in solution by different water supplies, varies considerably. Generally it is greater in well water or spring water than when taken from a creek in which the water has undergone aeration. For this reason it is an economy to aerate a well-water supply to thus expel as much of it as possible.

To ascertain how much lime is necessary to combine with the carbon dioxide held in solution 70 cubic centimeters (the miniature gallon) can be put into a four-ounce bottle and 30 cubic centimeters of limewater added thereto. On shaking the bottle the water becomes cloudy from the precipitation of the carbonate of lime, forming from the lime just introduced with the carbon dioxide, previously in solution in the water, and also the precipitation of the various mineral matter that owed its solubility to the previous presence of carbon dioxide. If the bottle be allowed to stand quietly the water will gradually clarify from the surface downward as the precipitated matter settles toward the bottom. In course of time there will be a layer of sediment at the bottom, with the supernatant water clear and bright. It is now easy to decant off 70 cubic centimeters of the clear liquid to be put into another bottle. If into this 70 cubic centimeters a drop or two of a solution of pheno-phthalain be added, if the 30 cubic centimeters of limewater carried in an excess of lime, a brilliant red color will develop on shaking the bottle. Should the 30 cubic centimeter not have carried in sufficient lime, no color will develop. In case there be no color, add limewater one cubic centimeter at a time until color appears. Repeat the entire experiment with this additional amount of limewater.

If, as would be most generally the case, a brilliant red shows, add decinormal sulphuric acid 0.2 cubic centimeter at a time. Each of these 0.2 cubic centimeter of acid exactly neutralizes one cubic centimeter of limewater. As soon as the correct amount is reached the red color will disappear from the water.

Repeat entire experiment with this corrected amount of limewater.

Each cubic centimeter of limewater thus found necessary represents one grain of lime per gallon. Assume that the corrected quantity be 21 cubic centimeters of limewater, then 21 grains of lime are required per gallon and 21,000 grains, or three pounds, per 1000 gallons.

In such case the current expense for material per 1000 gallons would be the cost of three pounds of a good grade of white lime.

There are now on the market several types of apparatus for carrying out the water-softening process from among which

the one best suited to individual conditions can be selected.

Permanent hardness is due to the presence in water of mineral matter that does not owe its solubility to the presence of carbon dioxide and remains in solution at temperatures above 212 degrees. These salts are, generally, sulphates of lime and magnesia. The maximum solubility of these salts is 178 grains per gallon at 95 degrees Fahrenheit, decreasing to 150 at 212 degrees. At 200 degrees precipitation begins, and is complete at 303 degrees. This last temperature corresponds to a steam pressure of about 70 pounds per square inch. Consequently, in all steam-power plants in which the normal boiler pressure exceeds 70 pounds it becomes practicable to precipitate these salts, outside the boiler in a live-steam heater and eliminate the precipitate from the water, thereby rendering the water suitable for boiler purposes. These live-steam heaters are generally modifications in stronger material of the exhaust steam heaters above described.

Treating permanent hardness at normal temperatures is effected by the introduction into the water of another soluble salt capable of reacting chemically on the sulphates of lime and magnesia. The soluble salt generally used on account of its low cost is soda-ash (carbonate of soda). The reaction consists in the sulphuric acid and the carbonic acid changing their bases with the formation of sulphate of soda and carbonate of lime or magnesia.

The sulphate of soda thus formed is very soluble and, comparatively, innocuous. The carbonates of lime or magnesia are insoluble, precipitate and can settle or be filtered out of the water.

The best water-softening results can only be obtained by a careful study of the requirements and individual conditions of the location where such installation is to be made. They can only be maintained by constant watchfulness of the operator for changes in the quality of the water supply so that he may make corresponding alteration in the quality and quantity of the re-agents.

With a water-softening apparatus, properly designed to suit the requirements and conditions, successful results depend upon the intelligent care and watchfulness of the operator.

Kansas City, Mo.

### Reported Steel Plant for Augusta.

It is reported at Augusta, Ga., that Swiss and French capitalists represented by Mr. George Wilson of Glasgow, Scotland, contemplate the establishment at Augusta of a large steel plant to use iron ore of a superior quality, which, it is said, has been discovered in large quantities in several localities near that city. The fuel proposition is the one drawback upon the undertaking, but this is being thoroughly considered, while municipal authorities are considering plans to equalize the flow of water through the canal, so as to insure electric power for the plant. It is reported that \$10,000,000 will be behind the enterprise.

### Another Portland Cement Company.

The Oklahoma Portland Cement Co., with principal offices in Kansas City, Mo., and chief works in the Indian Territory, has been incorporated with a capital stock of \$3,750,000. Its incorporators are Messrs. William Peet, J. H. Harrington, C. C. Courtney and W. D. Vickers of Kansas City, Mo.; J. D. Robinson of Independence, Mo.; O. S. Johnson of Chanute, Kan.; Jacob Geiger, John S. Logan, Charles Geiger, John E. Dolman, Andrew Wank and J. M. Heller of St. Joseph, Missouri.

# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

### BRIDGES, CULVERTS, VIADUCTS.

Elberton, Ga.—Elbert and Wilkes County Commissioners have awarded contract to Roanoke Bridge Co. of Roanoke, Va., at \$4725 for erection of proposed bridge previously mentioned; 130-foot and 138-foot steel span and joists; cement seats to be built on old piers; W. G. Adams, engineer in charge.

Greenville, S. C.—J. P. Goodwin, Supervisor of Greenville county, and S. O. Jackson, Supervisor of Anderson county, will open bids August 20 for building the proposed two bridges over Saluda river.\*

Plaquemine, La.—Bridge committee has decided to open bids September 9 for substructure, superstructure and approaches to proposed steel drawbridge across Bayou Plaquemine. Plans are on file. Address Jules A. Hebert of Police Jury.\*

Shreveport, La.—City and Bossier Parish has adopted plans and specifications by I. G. Hedrick of Kansas City, Mo., for construction of proposed \$200,000 bridge, previously mentioned, across Red River. Address The Mayor.

Williamsport, Md.—Washington & Berkeley Bridge Co. has decided upon principal features of proposed bridge to be constructed across Potomac river; to be 1500 feet long, spanning 600 feet of water; solid concrete construction; 30 to 35 feet wide; two railway tracks, driveway and footway; 10 or more arches; estimated cost \$80,000; Mason D. Pratt of Harrisburg, Pa., engaged as engineer in charge; Victor Cushman, president of company.

Winslow, Ark.—St. Louis & San Francisco Railroad Co. has begun construction of proposed three viaducts near Winslow; steel structures 1800 feet long, 125 feet high; to be 780, 420 and 450 feet long, respectively; foundations are now being built and steel towers will be erected next; F. S. Rice, engineer of bridges, St. Louis, Mo., in charge, under direction of M. C. Byers, engineer maintenance of way, St. Louis.

### COAL MINES AND COKE OVENS.

Bluefield, W. Va.—Southern West Virginia Fuel Co. incorporated with capital stock of \$25,000 by W. E. Fowler, William Sands, Harold A. Ritz and others.

Caseyville, Ky.—West Kentucky Coal Co. has let contract for erection of coal tipples, the foundations, pins, abutments and breakwater to be of concrete.

Cedartown, Ga.—Alabama & Georgia Iron Co., A. Griggs, president, awarded contract to George Trammell of Rome, Ga., for erection of 10 coke ovens. (See item under Iron and Steel Plants.)

Charleston, W. Va.—Justice Collins is reported to have leased two extensive tracts of coal lands on Winding Gulf and Guyan river for development.

Charleston, W. Va.—M. B. Coal Co. has purchased the coal-mining properties of Cardiff Coal Co. for \$575,000; includes four operating mines with daily output of 1800 tons, 2500 acres owned and 5250 leased. Purchaser will open additional mines, construct coke ovens, install modern mining equipment, build miners' houses and three store buildings, etc. C. C. Sharp is superintendent at mines. J. H. Nash of Charleston and Alfred S. Clarke of Providence, R. I., among those interested.

Corona, Ala.—Pickett & Thomas Coal Co. incorporated with capital stock of \$10,000 by D. F. Pickett, J. M. Thomas, Virgil Thomas, E. E. Pickett and Francis Pickett.

Fort Smith, Ark.—Missouri Coal Co. incorporated with capital stock of \$100,000; J. D. Chastain, president; B. H. Connor, vice-president, and A. S. Dowd, treasurer.

Gary, W. Va.—Central Pocahontas Coal Co. incorporated with capital stock of \$30,000 by Edward O'Toole, Howard N. Eavenson, F. D. Clifford, W. B. Hensel, L. E. Woods and others.

Glen Alum, W. Va.—Reported that Glen Alum Coal Co. is preparing to establish five new coal-mining operations in Mingo county.

Glenwood, W. Va.—Glenwood Coal & Oil Co. incorporated with capital stock of \$100,000 by W. H. Taylor of Wellsburg, W. Va.; John Wherry, Jr., of Amity, Pa.; F. H. Andrew of Washington, Pa., and others.

Jackson, Ky.—Imperial Coal Co., recently incorporated, has leased and will develop 1000 acres of coal land, including the Jackson Coal Co. properties; daily output to be 400 tons of coal; J. Y. Conn of Newport, Ky., president; W. E. Cassidy, Lexington, Ky., secretary-treasurer; capital stock \$25,000; main offices at Lexington.

Middlesboro, Ky.—Kelly & Irvine of Big Stone Gap, Va., have taken leases on 12,000 acres of coal land near Middlesboro and are preparing to install two modern mining plants.

Paducah, Ky.—St. Bernard Coal Co. will build tipples at a cost of \$7000 to replace present structure.

Pennington Gap, Va.—Black Mountain Collieries Co. will build, it is reported, 250 coke ovens at its coal mines near Pennington Gap; J. M. Barr, president; offices at Portsmouth, Va.

Pennington Gap, Va.—Virginia Iron, Coal & Coke Co. is reported as preparing to begin construction of 200 coke ovens with daily output of 1000 tons, product to be used in company's several iron furnaces; general offices at Bristol, Va.-Tenn.; New York office at 40 Wall street.

White Plains, Ky.—Joseph Randal of Paducah, Ky., has organized company to develop coal mines near White Plains.

### COTTON GINS.

Ashdown, Ark.—Farmers' Cotton Gin Co. incorporated with capital stock of \$3000 by W. F. Bridewell (president), J. H. Wallace and J. T. Cowling.

Barnesville, Ga.—J. B. P. Milner is reported to have awarded contract for new equipment for his cotton gin.

Cache, O. T.—Incorporated: Farmers' Co-operative Gin Co., with capital stock of \$7500, by W. P. Smith, C. M. Clingan, G. M. Harris and others.

Dexter, Mo.—Dexter Gin Co. has been incorporated; president, Alfred Morgan; vice-president, R. L. Ladd; company will erect frame building, 28x150 feet; cost, with ginning equipment, \$5000; architect, Continental Gin Co., Birmingham, Ala.

Elder, I. T.—Leonard Gin & Mill Co. organized with capital stock of \$5000 to build cotton gin.

Elk City, O. T.—New State Gin Co., recently reported incorporated, will erect gin at cost of \$15,000; capacity, 50 bales per day; engineer, Sam Crabtree; architect, G. Rhinehart; secretary, John Aldridge.

Hoxie, Ark.—Lawrence County Warehouse Co. will erect cotton gin; capacity 50 bales.\*

Kendrick, O. T.—Farmers' Co-operative Gin Co. incorporated with capital stock of \$100,000 by H. P. Thomas of Kendrick, E. B. Hoffman of Chandler, W. M. Gordon and others.

Kennett, Mo.—Farmers' Gin Co. incorporated with capital stock of \$6000 by John Petty, O. B. Harris and H. F. G. Lacey.

Oklahoma City, O. T.—James W. Team and associates will build cotton gin, and possibly oil mill also.

Orchard Hill, Ga.—W. T. Gardner and E. E. Taylor will build cotton gin.

Rector, Ark.—Farmers' Union Gin Co. incorporated with capital stock of \$7000; A. B. Glass, president; B. A. Foster, vice-president; A. J. M. Young, treasurer, and W. H. McCarroll, secretary.

Richwoods, Ark.—Farmers' Union Gin Co. incorporated with capital stock of \$5000; W. J. Nicks, president; S. A. Dillport, vice-president, and T. B. Allison, secretary-treasurer.

Sparks, O. T.—Union Gin Co. incorporated with capital stock of \$5000 by T. S. Williams, H. M. Lightfoot, H. S. Henderson and others.

Sumner, O. T.—Sumner Gin & Elevator Co., recently reported incorporated, will erect two-story building 30x40x22 feet, with engine-room; cost of building and equipment, \$9000; two elevators previously erected; total cost, \$15,000; company will gin cotton and deal in grain, etc.; building materials have been purchased; architect, C. E. McCune, Perry, O. T.; engineer, J. F. Ireland, Skedee, O. T.; Ed. J. Coyle, secretary, treasurer and manager; principal address, Perry, O. T.

### ELECTRIC AND GAS PLANTS.

Aiken, S. C.—Carolina Light & Power Co., H. M. Dibble, president, has called a meeting for August 14 to consider issuing \$40,000 of bonds.

Baltimore, Md.—Baltimore Terminal Co., Maryland Trust Building, Calvert and German streets, has awarded contract to J. H. Miller, 110 Dover street, for the construction of one-story brick and steel electric substation, 35.8x59.8 feet, at southwest corner Stockholm and Scott streets, to cost \$4000.

Beebe, Ark.—City contemplates establishment of electric-light plant and water-works. See "Water-works." Address The Mayor.

Blacksburg, Va.—Blacksburg Power & Supply Co. will probably soon begin to plan for installation of its proposed electric-lighting plant.

Bristol, Va.-Tenn.—Company recently reported as organized to develop water-power and build electric plant at Fish Dam, near Bristol, is understood to be proceeding with arrangements to build the proposed 60-foot dam that will develop 4000 horse-power to be transmitted by electricity to Bristol and other nearby cities. Charles Hansel & Co., 43 Wall street, New York, are the engineers in charge. Chas. Hall Davis, 4 Wall street, New York, is financing the company.

Brookford, N. C.—Brookford Mills has awarded contract to Abbe & Edwards of Hickory, N. C., for construction of stone and concrete dam to develop power; dam will cost about \$18,000.\*

Cambridge, Md.—John H. Burgess, Jr., and W. H. Medford have received municipal franchise for electric plant.

Cornelia, Ga.—City will vote August 13 on issuance of \$15,000 in bonds for electric-light plant and water-works. Address The Mayor.

Douglas, Ga.—City is reported as arranging for installation of considerable new machinery in electric-light plant, including 200-kilowatt alternator, 250-horse-power Corliss engine, 100-horse-power boiler, 12-kilowatt generator, etc.; L. M. Alford, superintendent.

Graham, Va.—It is understood that the erection of electric-light and power plant is contemplated. Probably C. W. Keister can give information.

Hickory, S. C.—Southern Power Co., main offices in Charlotte, N. C., has purchased the Horseford Shoals water-power property, four miles north of Hickory, and will develop 3000 horse-power for transmission by electricity in connection with the company's various other powers.

Kings Mountain, N. C.—City to expend portion of \$50,000 bond issue for electric-light

plant. (See item under Water-works.) Address The Mayor.

Lawton, O. T.—Lawton Lighting Co. incorporated with capital stock of \$100,000 by C. S. Stephenson of Lawton, J. E. and D. E. Stephenson of Ansonia, Ohio.

Little Rock, Ark.—Electric Construction Co. incorporated with capital stock of \$25,000. Richard Bragg is president, J. A. Van Etten vice-president and F. C. Bragg secretary.

Pineville, W. Va.—Guyan River Company incorporated with capital stock of \$5000 to operate electric-light and power plants, etc., by R. A. Kellar, J. E. Campbell, F. L. Smith and others.

Rockdale, Texas.—Reports state that T. B. Burbridge and J. J. Henry, representing the Northern Colorado Power Co. of Denver, Col., are negotiating for \$5000 acres of lignite coal lands with a view to opening mines and using the output for their proposed plant to generate electricity for distribution to various cities. They were mentioned last week (under Houston) and previously as planning to establish this plant. Messrs. Ryan, Hanson & Perry of Rockdale are said to represent Burbridge and Henry in the negotiations for the mining properties.

Romney, W. Va.—Romney Light & Heating Co. incorporated with capital stock of \$7000 by I. D. Shaffer, J. A. Luther, W. A. Weaver, each of Scalp Level, Pa.; N. D. Shaffer and F. B. Lesse of Johnstown, Pa.

Salem, Va.—City has contracted with the Roanoke Water-power Co. of Roanoke, Va., for electric lighting of the streets and company will extend lines and install branch distributing station.

San Antonio, Texas.—San Antonio Gas & Electric Co. is understood to have closed purchase of six acres of land as site for proposed new power plant, to include generators, alternators, etc.

Wheeling, W. Va.—City proposes to expend \$175,000 for gas works. (See item under Water-works.) Address The Mayor.

Williamsburg, Ky.—Williamsburg Electric Light Co. incorporated with capital stock of \$5000 by E. E. Nelson, L. A. Nelson and Lida Nelson.

### FOUNDRY AND MACHINE PLANTS.

Baltimore, Md.—James J. Lacy Company, 1401 Block street, will build two-story foundry at Block and Willis streets; 16.6x87.4 feet; cost about \$3000; R. C. Sandlass, architect; Willis & Mason, 324 West Biddle street, contractors.

Bartlesville, O. T.—Bartlesville Foundry and Machine Works plans to build as follows for its proposed plant: Foundry, 70x89 feet; machine shop, 40x80 feet; pattern shop, 30x50 feet; boiler shop, 80x150 feet; all of structural-steel frame, with brick walls, and costing \$20,000. Equipment of machinery to be installed will include steam hammers, cupolas, boring mills, plate-bending rolls, traveling cranes, machine tools, etc. R. D. Rood is president, Geo. B. Keeler vice-president and J. H. McMorrow secretary-treasurer. P. J. Barringer is general manager.\*

Calvert, Ala.—The Tombigbee Railroad will remove its Fairford shops to Calvert; John T. Cochran, president, Mobile, Ala.

Fort Worth, Texas.—Missouri, Kansas & Texas Railway is understood to be planning to undertake extensive improvements, to include the construction and equipment of repair shops, roundhouses, yards, etc.; about \$200,000 to be expended for initial betterments; A. A. Allen, general manager, and J. J. Petheram, chief engineer; offices at Dallas, Texas. (See Building Note under Fort Worth, Texas, and Dallas, Texas.)

Jonesboro, Ark.—Curtis Engine & Boiler Co., care of Business Men's Club, contemplates establishing engine and boiler works.

Kansas City, Mo.—Kansas City Lock Nut Co., 818 Scarritt Building (recently mentioned), will erect and equip buildings at cost of \$35,000; buildings to be 90x120 feet. Company will manufacture lock nuts and machine nuts; engineer in charge, C. A. De Haven; manager, James Moore Fitch.\*

Knoxville, Tenn.—Hammock Steel Range Co. will build plant for manufacturing cooking range invented and patented by M. V. Hammock; building to be two stories high and equipped with modern machinery for manufacturing the range noted. M. E. Parmelee is preparing the plans and specifications.

Longview, Texas.—G. A. Kelly Plow Works will enlarge plant, erecting a 70x150-foot forge shop as a part of the improvements.



Philippi, W. Va.—Philippi Foundry & Machine Co. incorporated with capital stock of \$20,000 by E. R. Dyer, S. A. Moore, J. C. Watson, A. G. Dayton and C. F. Teter.

Searcy, Ark.—Carlton Manufacturing Co. incorporated with capital stock of \$20,000; J. S. Stilwell, president; W. G. Caldwell, vice-president; J. H. Ross, treasurer, and Robert Carlton, manager, to manufacture machine for cutting overalls.

Sherman, Texas.—St. Louis & San Francisco Railroad Co. has had plans prepared by C. M. Roquette, Frisco Building, St. Louis, Mo., for buildings to be erected in accordance with recently announced plan for car repair facilities at Sherman; one-story machine shop to be 100x125 feet; power-house 30x75 feet; planing mill 100x125 feet; blacksmith shop 40x60 feet; brick, stone and reinforced concrete; plate glass; composition roofing; iron and steel work; electric-lighting fixtures; plumbing; J. F. Hinckley, chief engineer, St. Louis, Mo.

#### ICE AND COLD-STORAGE PLANTS.

Arcadia, La.—Arcadia Progressive League is interested in plans to build ice plant.

Augusta, Ga.—Augusta Brewing Co. is reported as to convert its brewery into an ice plant.

Center, Texas.—O. G. Bright of Nacogdoches, Texas, will build ice plant at Center, about \$15,000 to be invested. Reported that contract has been awarded for machinery.

Darlington, S. C.—Carolina Ice & Packing Co. will increase capital stock, probably from \$20,000 to \$50,000, and enlarge plant.

Ensley, Ala.—Commercial Club, H. S. Meade, president, is interested in movement to build ice plant.

Hattiesburg, Miss.—A. K. McInnis and others will form company to establish 50-ton ice plant.

Memphis, Tenn.—J. N. Oliver will build general cold-storage warehouse; structure to be 63x240 feet; five or seven stories high; other details not announced.

Waynesville, N. C.—Reported that the Waynesville Ice Co. has awarded contract for machinery to increase output of ice to 12 tons daily and to increase capacity of its cold-storage rooms.

#### IRON AND STEEL PLANTS.

Augusta, Ga.—It is stated that French and Swiss capitalists are planning the organization of a company with capital stock of \$10,000,000 to develop iron and lignite deposits and build rolling mills and car works. Power for driving the machinery is contemplated to be obtained from the Augusta canal, and city officials have been conferring relative to improvements that will provide the necessary power, these improvements to be made by the proposed company. George Wilson represents the interested capitalists, and is conferring with Nisbet Wingfield, Commissioner of Public Works, and W. J. Moore, secretary of Chamber of Commerce, relative to the establishment of the enterprise.

Battelle, Ala.—Wm. S. Rowe, president of First National Bank, Cincinnati, Ohio, is negotiating for the Battelle iron furnace, formerly operated by the Lookout Mountain Iron Co. of Chattanooga, Tenn. He represents manufacturers who intend to blow in the furnace if the sale is closed.

Cedartown, Ga.—Alabama & Georgia Iron Co. is preparing to blow in the Cherokee iron furnace and has awarded contract to George Trammell of Rome, Ga., for erection of 10 coke ovens. P. M. Egan of Cedartown has contract for oven brickwork; A. Griggs, president of Alabama & Georgia Iron Co.

Chattanooga, Tenn.—Charles Herron, Jr., and Casner Sharp, Boyce street, will establish brass works; reported that initial equipment has been obtained.

Reed Island, Va.—Virginia Iron, Coal & Coke Co. contemplates no improvements to the Reed Island charcoal furnace, referred to last week, but will blow in the plant in a few weeks; general offices at Bristol, Va. Tenn.; offices of president, Henry K. McHarg, 40 Wall street, New York.

Wheeling, W. Va.—La Belle Iron Works will consider at its annual meeting in September an increase of capital stock from \$7,500,000 to \$10,000,000, recommended by the board of directors. Company has built new mills and iron furnace during past several years and provided other extensive betterments, which the increased capital will cover. General offices at Steubenville, Ohio; A. J. Clarke, vice-president; branch offices at Wheeling.

#### LUMBER AND WOODWORKING PLANTS.

Arden, W. Va.—Carney, Fendegast & Hughes Lumber Co., recently noted to have

secured timber rights in Barbour county, are operating sawmill and shipping lumber. Purchase included 1200 acres of land, with sawmill and houses for laborers' use; purchase price \$15,000.

Asheville, N. C.—W. D. Pendleton of West Virginia has purchased 1000 acres of timber land in Transylvania county and will build sawmill. He can be addressed care of Canada, Brown & Logan of Asheville.

Atlanta, Ga.—Cornell Box & Lumber Co. incorporated with capital stock of \$50,000 to manufacture lumber, boxes, crates and other wood products.

Atlanta, Ga.—Insulator-plant Factory.—F. P. Catchings is contemplating establishment of plant for the manufacture of locust insulator pins.\*

Baltimore, Md.—National Casket Co., 827 East Lombard street, has, it is reported, awarded contract to James J. O'Connor, 427 East Lexington street, for the erection of addition to its plant; four stories, 40x60 feet; brick with stone trimmings; mill construction; automatic-sprinkler system; electric wiring and fixtures; steam-heating system; elevator.

Beaumont, Texas.—Neches Lumber Co., recently incorporated with \$50,000 capital stock, has organized with C. R. Cummings of Houston, Texas, president; Sam Z. Powell, vice-president; W. C. Gray, secretary-treasurer. Company operates mill with daily output of 40,000 to 50,000 feet of lumber.

Beebe, Ark.—Franklin Handle Co. is arranging to double capacity of plant.

Brownsville, Texas.—Home Lumber Co. incorporated with capital stock of \$25,000 by T. C. Yantis, Brooke Smith, O. H. Ingram and others.

Cheraw, S. C.—E. G. Ingram, Jefferson, S. C., and others will establish plant for manufacturing coffins and caskets for wholesale trade; company will also do jobbing business in coffin and casket supplies; E. G. Ingram to be president.

Dallas, Texas.—Bridges Wagon Co., recently reported incorporated with capital of \$10,000, has organized with B. F. Bridges, president; F. A. Winerich, vice-president; D. F. Burks, treasurer, and W. H. Richardson, secretary. Company will, as stated lately, manufacture spring wagons, delivery wagons, trucks, etc.

Decatur, Ala.—Bixby Lumber Co. incorporated with capital stock of \$40,000 by Wm. F. Bixby, Richard J. Matheson and Frank G. DeMarce.

Edinburg, Va.—Edinburg Spoke & Bending Co. incorporated with capital stock of \$10,000 to manufacture spokes, rims, felloes, etc.; J. M. Solomon, president; Rebecca Solomon, vice-president, and Watson Conklin, secretary-treasurer.

Ellisnore, Mo.—Ellisnore Stone & Timber Co. incorporated with capital stock of \$10,000 by W. A. Bowman, E. P. Quinn, W. B. Seats and others.

Fort Smith, Ark.—Cannon-Wheat Lumber Co. incorporated with capital stock of \$150,000 by L. S. Cannon, A. D. Shrewsbury and W. J. Wheat to deal in and manufacture lumber and deal in timber lands.

Franklinton, N. C.—F. J. and J. H. Whitfield will establish woodworking plant.

Greensboro, N. C.—Acme Match Co. incorporated with capital stock of \$100,000 to manufacture matches by J. Palmer, president; Gus Palmer, vice-president, and L. A. Wade.

Harrisburg, Ark.—Polinsett Lumber Co. incorporated with capital stock of \$1,000,000; E. L. Reel, president; M. A. Slatley, vice-president; H. S. Cody, secretary, and H. D. Raymond, treasurer.

Hattiesburg, Miss.—A. E. Lumber Co. incorporated with capital stock of \$100,000 by R. T. Sleeper and R. L. Hall of Hattiesburg and E. V. Remington of Oklahoma City, O. T.

Henderson, Texas.—E. W. Hubbard will build sawmill. Construction will begin at once.

Hull, Ala.—Big Sandy Lumber Co. has improved and will operate plant recently purchased from J. T. Bates Lumber Co.; capacity of sawmill is 25,000 feet yellow-pine lumber per day; manager, W. C. Sparkman; treasurer, J. T. Edmonds. (Recently mentioned under Tuscaloosa.)\*

Johnson City, Tenn.—A. W. Gilmer will build 30x70-foot sawmill; cost \$3000; product, 15,000 feet green lumber per day; manager, A. W. Gilmer. (Mentioned recently.)

Kingston, Ark.—Kingston Spoke Manufacturing Co. incorporated with capital stock of \$15,000; Joel N. Bunch, president; H. H. Basone, vice-president; Geo. W. Basone, secretary, and R. D. Boatwright, treasurer.

Knoxville, Tenn.—Robert Vestal and J. F. Schultz of the Vestal Lumber Co. are report-

ed as planning the development, by building sawmills, of an extensive tract of timber land between Knoxville and Bushnell.

Knoxville, Tenn.—The Hardwood Lumber Co. will increase capital stock \$20,000.

Ladlin, Mo.—Ladlin Mercantile & Lumber Co. incorporated with capital stock of \$12,000 by James W. Faulker and others.

Laurinburg, N. C.—Walter H. Neal and W. D. Tucker will organize Colonial Screen Co., with capital stock of \$10,000, to manufacture windows and doors for wire screens.

Lexington, Ky.—J. M. Cartwright of Fort Wayne, Ind., and Frank Brewer of Angola, Ind., have purchased walnut timber lands near Lexington and will cut the tract.

Lexington, N. C.—New South Art Co. organized by J. W. Crowell, W. H. Walker and J. T. Hedrick to manufacture picture frames, moldings, etc.

Marshall, Texas.—J. W. Ogburn Lumber Co., recently mentioned as purchasing and improving lumber plant, will erect building 30x80 feet. R. W. Taylor is president and general manager.\*

Mobile, Ala.—Talcon Planing Mill Co. incorporated with capital stock of \$10,000 by R. D. Jones, T. F. Roberts and Charles Werneth.

Nashville, Tenn.—Robinson-McGill Carriage Co., in Nashville, will be organized with capital stock of \$50,000 to establish plant with an annual output of 1500 to 2000 buggies; Thos. M. Robinson of Nashville, president; J. M. McGill and Ernest Caldwell of Shelbyville, Tenn., directors. (Recently mentioned.)

Nashville, Tenn.—Dews-Fox Lumber Co. incorporated with capital stock of \$10,000 by Charles E. Dews, W. H. Green, H. L. Fox, Joseph W. Byrnes and Clarence T. Dews.

New Orleans, La.—Home Lumber & Supply Co., Ltd., 406 Wells-Pargo Building, recently reported incorporated, will establish plant for the manufacture of lumber and buying and selling of lumber, paving blocks and paving materials; president, W. H. Reed; vice-president, W. B. Harbeson; secretary-treasurer, H. T. O'Connor. (Company's name incorrectly given in former mention.)

New Orleans, La.—Salmen Brick & Lumber Co. has purchased for \$60,000 the Union Lumber Co. plant, which it has been operating under lease for two years; mill is used for planing and has capacity of 30,000 feet of lumber daily.

Paragould, Ark.—Paragould Lumber & Supply Co. incorporated with capital stock of \$25,000; Howard Martin, president; R. H. Weatherly, vice-president; E. A. Anderson, secretary, and M. F. Collier, treasurer.

Paris, Texas.—Paris Table & Furniture Manufacturing Co., recently reported incorporated, will establish plant for the manufacture of tables and furniture. Two buildings will be erected; one of frame, three stories, 60x100 feet; one brick, 60x150 feet, three stories; cost of buildings and equipment, \$35,000; managing officers, J. W. Wade and A. N. Rogers.

Parkersburg, W. Va.—Dunbar & Welch have purchased oak and poplar timber lands for development by erecting sawmills.

Shoffner, Ark.—Shoffner Lumber Co. incorporated with capital stock of \$25,000; E. P. Shoffner, president, and F. D. McCaffrey, secretary-treasurer.

Shreveport, La.—N. A. Ayres Lumber Co. incorporated with capital stock of \$75,000 to build sawmill; Z. R. Lawton, president; R. S. Ayres, vice-president, and F. S. Ayres, secretary-treasurer.

Statesville, N. C.—L. B. Bristol and Isadore Wallace of Statesville and Manly McDowell of Morganton, N. C., have purchased 1000 acres of timber land for development by erecting sawmills.

Tulahoma, Tenn.—Greenfield-Talbot-Finney-Battle Company of Nashville, Tenn., has purchased 2200 acres of timber land for development. Company has large mill at Tulahoma, and recently completed extensive improvements costing \$20,000.

Upshur County, W. Va.—Edward R. McCann of Lorain, Ohio, has purchased 3200 acres of timber land in Upshur county for development.

West Durham, N. C.—Carolina-Florida Lumber Co. incorporated with capital stock of \$125,000 by W. C. Angier, W. A. Erwin, E. K. Powe and K. P. Lewis.

Wilson, N. C.—J. N. Bryan of Butterworth, Va., will build planing mill and sash, door and blind factory at Wilson.

Wilson, N. C.—J. N. Bryan is reported as to build sawmill.

Zwolle, La.—Sabine Lumber Co. will rebuild lumber plant recently noted burned. Planing mill and power-house are to be

erected at approximate cost of \$30,000; planing mill to be 60x160 feet; architect, J. T. Duke; treasurer and manager, J. P. Towedy.

#### MINING.

Alexandria, Va.—Columbia Granite & Dredging Co. incorporated with capital stock of \$300,000; Geo. W. Dalzell, president; C. E. Hagner, Jr., vice-president, and F. A. Colford, secretary-treasurer, all of Washington, D. C.

Bentonville, Va.—Reported that S. M. Boyd of Pittsburgh, Pa., has optioned copper-mining properties for development near Bentonville.

Blacksburg, E. C.—Dr. Geo. F. Lee of Blacksburg and John M. Pollock are contemplating formation of stock company and erection of plant for graphite development. Land containing graphite has been secured in North and South Carolina.

Chicora, Fla.—Bradley Fertilizer Co. of Boston, Mass., is understood to have awarded contract to McIver & MacKay of Ocala, Fla., for construction of two phosphate plants. This company reported recently as having purchased 12,000 acres of land for development.

Guthrie, O. T.—Joplin Standard Lead & Zinc Co. incorporated with capital stock of \$300,000 by N. E. Sherwood and L. J. Postle of Omaha, Neb., and C. V. Pattison of Guthrie.

Hemp, N. C.—Ellis Mining Co. incorporated with capital stock of \$50,000 by A. J. Jones, J. L. Tull, M. E. Street, J. D. Wilcox and F. E. Street.

Joplin, Mo.—Lehigh Zinc Mining Co., recently reported incorporated, will erect and equip mill at cost of \$10,000; capacity, 100 tons zinc per day; H. A. Ayres, president and manager; O. L. Steele, secretary.

Kelso, Tenn.—J. A. Luna, treasurer Elk Mining Co., advises that his company acquired some time ago the 4000 acres of land recently noted to have been leased, and has been developing same, taking out deposits of brown phosphate.

Lawton, O. T.—Isan Mining, Smelter & Development Co. incorporated with capital stock of \$2,000,000 by George W. Isan, George Isan, H. Carver and Emil C. Knappe.

Liberty, Texas.—James Harrison of St. Louis, Mo., and associates have purchased lands near Liberty and will drill for sulphur.

Luray, Va.—Blue Ridge Copper Mining Co. reported as planning to extend its copper-mining developments; Geo. S. Brigham, manager.

Memphis, Tenn.—Tishomingo Gravel Co., capitalized at \$10,000, by W. B. Troy, M. Larkin, H. W. Brenna, I. B. Tigrett and H. E. Graper.

New Orleans, La.—Southern Mineral & Land Improvement Co. will hold meeting on August 8 at Canal-Louisiana Bank & Trust Co.'s offices to consider issuing bonds for the development of its properties. I. L. Lyons is president.

Plant City, Fla.—Reported that Swift & Co. (main offices in Chicago, Ill.) have purchased for \$54,000 an extensive tract of phosphate land near Plant City and will at once develop the property, erecting a large modern mining plant.

Santa Anna, Texas.—Reported that Cal Huffman and associates are arranging to begin active developments of coal-mining properties seven miles from Santa Anna.

St. Louis, Mo.—Ajax Copper Mining Co. incorporated with capital stock of \$100,000 by Edward Butler, Thomas Ward McManus, Sam T. Price, Edwin B. Lane and others.

Wheeling, W. Va.—Willis Creek Oil Co. incorporated with capital stock of \$10,000 by James Storey, T. R. Handlan, W. A. Weston and others.

#### MISCELLANEOUS ENTERPRISES.

Arcadia, La.—Arcadia Progressive League is interested in plans to build steam laundry.

Atlanta, Ga.—Piedmont Construction Co. incorporated with capital stock of \$6000 by M. M. Elkan, Maurice W. Thompson and R. B. Tufts.

Baltimore, Md.—Jesse F. Hampton Company incorporated with capital stock of \$5000 to do contracting and building by Jesse F. Hampton, 235 Lovegrove alley; Herbert E. Hampton, Albert H. Kuhlman and others.

Baltimore, Md.—A. C. Spicer Plumbing & Heating Co. incorporated with capital stock of \$5000 by Allen C. Spicer, 1309 Third avenue west; Charles O. Skipper, John W. Spicer and others.

Baltimore, Md.—Automatic Shucker Co. incorporated with \$25,000 capital stock to deal in devices for shucking oysters, etc., by Edward L. Torsch, 332 North Howard street; John H. Parker, Frederick A. Torsch and associates.

Baltimore, Md.—White Garage Co. incorporated with capital stock of \$10,000 by Lee W. Tremblay, Charles F. Feast, 331 North Charles street; Walter A. Mason and others.

Baltimore, Md.—Revised plans have been distributed for bottling plant to be erected on Eutaw street, between Hamburg and Henrietta streets, for the Joseph Schlitz Brewing Co. of Milwaukee, Wis.; Kirchoff & Rose, architects, Milwaukee; Parker & Thomas, supervising architects, 1109 Union Trust Building; structure to be two stories; 124x155 feet; cost about \$50,000.

Baltimore, Md.—Warfield Plumbing & Heating Co. has been incorporated with capital stock of \$2500 to conduct general heating and plumbing business by H. Allen Warfield, 1719 Liberty road; Thomas L. Purnum, Earl H. Brooks, 1709 West Fayette street, and J. Arthur Nelson.

Beaumont, Texas.—Moore Oil Co. incorporated with capital stock of \$6000 by H. A. Thompson, Jr., and J. W. Henderson of Beaumont and J. A. Moore of Houston to drill for oil.

Benson, N. C.—Hall Hardware Co. incorporated with capital stock of \$25,000 by E. L. Hall, J. L. Hall and Overby.

Benton, Ark.—Benton Telephone Co. incorporated with capital stock of \$3000. J. M. Caldwell is president, W. L. Caldwell vice-president and manager and J. F. Lee secretary-treasurer.

Bigheart, O. T.—Big Fifty Oil Co. incorporated with capital stock of \$50,000 by J. Richard Hoskins of Bigheart, Edward A. Ross and Jerome B. Hinkle of Ramona, O. T., to drill for oil.

Birmingham, Ala.—Incorporated: Waterman Land & Improvement Co., capitalized at \$5000, by R. W. Snyder, H. Chisolm and W. P. McCrossin.

Birmingham, Ala.—South Birmingham Heights Land Co. incorporated with capital stock of \$30,000 by C. E. Halls, George T. Brazleton, I. D. Steele and others.

Bowle, Texas.—Bowle Compress & Storage Co. changed title to Northwest Compress Co. and increased capital stock from \$40,000 to \$80,000.

Buena Vista, Va.—The Blue Ridge Corporation incorporated with capital stock of \$25,000 for general realty improvements; W. T. Robey, president; W. M. Brown, vice-president, and E. W. Randolph, secretary-treasurer.

Chattanooga, Tenn.—Hamilton County Commissioners have decided to tunnel instead of driving a cut as was at first contemplated. Tunnel will be 150 feet long. W. L. Dodd, County Engineer, is preparing the plans and specifications.

Columbia, S. C.—Commission on Statehouse Grounds awarded contract to John J. Cain at \$8200 for paving, continuation of granite steps and abutments to terrace.

Covington, La.—Henry B. Ayers will form stock company to establish steam laundry.

Crowley, La.—Star Rice Milling Co. organized with capital stock of \$75,000; A. B. Allison, president; J. R. Roller, vice-president, and E. E. Edmundson, secretary-treasurer. Company will operate the Star Rice Mill at Crowley and White Swan Rice Mill at Morse, La.

Danville, Va.—The Real Estate, Loan & Deposit Co., D. R. Creevy, Jr., president, plans to improve 75 acres of land for a suburban residence site.

Democrat, N. C.—North Buncombe Telephone Co. incorporated with capital stock of \$5000 by J. D. Murphy of Asheville, N. C., James N. Morgan of Morgan Hill, N. C., and James O. McElroy of Stackville, N. C.

Fort Smith, Ark.—Thrash-Lick Printing Co. will rebuild plant recently reported burned; cost of buildings, with equipment, to be about \$40,000; manager, James B. Moore.

Fort Worth, Texas.—Fort Worth Compress Co. changed title to Trinity Compress Co. and increased capital stock from \$50,000 to \$100,000.

Galveston, Texas.—Bowers Southern Dredging Co. has submitted lowest bid—\$35,400—for proposed inland waterway in connection with Government harbor improvements; waterway to extend from Pass Cavallo to Aransas Pass; bid was 18.8 cents per cubic yard on a basis of 538,000 cubic yards of work.

Guthrie, O. T.—Sterling Oil Co. incorporated with capital stock of \$1,000,000 by A. D. Bowser and Henry Tomlinson of Chanute, Kan.; Daniel Fox of Petrolia, Ont., and E. V. Remington of Oklahoma City to drill for oil.

Hagerstown, Md.—J. Frank Roessner of Hagerstown, A. F. Hyson and L. I. Blackman of Chicago, Ill., have formed company to take over Mr. Roessner's steam laundry, enlarge, improve and operate it.

Heth, Ark.—Heth Improvement Co. incorporated with capital stock of \$20,000 by H. T. Morrison (president), R. A. Scott, James R. Blair and others.

Lagrange, Ga.—Lagrange Coca-Cola Bottling Co. incorporated with capital stock of \$10,000 by O. F. Copeland, Columbus Roberts and George S. Cobb.

Lagrange, Ga.—Gill-Awtrey Construction Co. incorporated with capital stock of \$10,000 for general construction purposes by C. M. Awtrey and J. C. Gill.

Leslie, Ark.—Leslie Telephone Co. incorporated with capital stock of \$15,000 by W. R. Foley, president; H. F. Wilson, Wm. T. Mills, C. V. Pyne and George W. Smith.

Louisville, Ky.—It is understood that plans are being perfected for the organization of the American Water-works Equipment Co. by John Long, 210 Louisville Trust Building.

Louisville, Ky.—Harry I. Wood Company proposes to form the Wood Construction Co. to take over and continue the electrical construction department of its general electrical machinery and supply business.

Louisville, Ky.—Falls City Construction Co. is understood to have completed organization and preparing to begin active construction work under contracts; Harry Lewman, superintendent of construction; offices in Lincoln Trust Building.

Luray, Va.—Page Valley Telephone Co. has purchased municipal franchise for telephone system.

Marshall, Texas.—Dallas & Marshall Oil Co. incorporated with capital stock of \$10,000 by A. A. Fuller and others of Marshall, Edward Gray of Dallas, C. D. Lusk of Fort Worth and others to drill for oil.

Mobile, Ala.—National Dredging Co. of Mobile and Wilmington, Del., has received the contract for dredging Mobile channel; recently mentioned as lowest bidder; expenditure to be \$340,000.

Nashville, Tenn.—H. G. Hill Grocery & Baking Co. has purchased Dixie Mills and will install equipment for grinding cattle and stock feed, etc.

Natchitoches, La.—Natchitoches Compress Co. incorporated with capital stock of \$25,000 by L. Caspari, president; S. H. Hill, secretary; Samuel Levy, treasurer, and D. G. Seay, general manager.

New Orleans, La.—Jefferson Ferry Co. incorporated with capital stock of \$20,500 to operate ferry on the Mississippi river; E. P. Brady, E. A. Quinette and H. L. Harvey appointed a committee to obtain plans and specifications for building wharves and pontoons. H. L. Harvey is president.

New Orleans, La.—Reported that the Goodwin Milling Co. of St. Louis, Mo., will build a large cotton-oil mill at New Orleans, about \$100,000 to be invested.

New Orleans, La.—Louisville & Nashville Railroad Co. is now preparing to begin the improvement work involved in its previously announced plans for providing extensive freight yards (three miles long) and site for removal of present roundhouse and repair shops. Location is five miles from city. Reported that \$1,000,000 will be the cost of the betterments. William H. Courtenay, chief engineer, Louisville, Ky.

New Orleans, La.—Schumert & Warfield, Ltd., incorporated with capital stock of \$50,000 by Oscar Schumert, John B. Warfield and others.

Norfolk, Va.—William A. Burckard Company incorporated with capital stock of \$30,000; Wm. A. Burckard, president; Charles Sorrell, vice-president, and E. T. Henderson, secretary-treasurer.

Oklahoma City, O. T.—Shuler Music Leaf Turner Co. incorporated with capital stock of \$100,000 by C. E. Shuler, E. S. Seeley, Ed. Hull and others.

Opelousas, La.—Reports state that the Union Irrigation Co., of which details have been reported previously, is about to begin the construction of its proposed irrigation plant, which will convert 100,000 acres of land into a rice-growing section. Proposed canal to be 250 feet wide and 31 miles long, with laterals 50 feet wide. Pumping stations will be equipped with two large Corliss engines and will cost about \$100,000.

Parsons, W. Va.—Cheat Valley Publishing Co. incorporated with capital stock of \$3000 by Jeff Lipscomb, S. O. Billings, W. F. Squires and others.

Pensacola, Fla.—A. J. Mackey will establish steam laundry; building for this purpose to be 76x120 feet in size and will be erected by F. C. Brent. Contract for erection awarded to C. H. Turner Construction Co.

Porto Rico (P. O. at Jonesboro), Ark.—Porto Rico Planting Co. incorporated with capital stock of \$50,000 by Lewis Sachs of Jonesboro, Sigmund Sachs of Althelmer, Ark., and Robert M. Foster of St. Louis, Mo.

Rayville, La.—Brown M. Dority proposes to organize company to construct telephone system.

San Antonio, Texas.—Walsh Oil Co. incorporated with capital stock of \$25,000 by H. M. Aubrey of San Antonio, H. T. Stapf of Houston, Texas, and others to drill for oil.

Sanford, N. C.—J. R. Ingram will form corporation to continue operation of his bottling plant and make improvements, including the erection of building.

Shawnee, O. T.—Charles T. Derr Contracting Co. incorporated with capital stock of \$3000 by Charles T. Derr of Oklahoma City, Robert T. Foster and C. W. Kerfoot of Shawnee.

Shreveport, La.—J. C. Mahlen will build abattoir.

Slocumb, Ala.—Ardis-Adams Company incorporated with capital stock of \$5000 by J. B. Ardis, B. J. Adams, R. H. Johnson and others.

Spring Gap, W. Va.—Little Capon & Spring Gap Telephone Co., recently reported incorporated, has appointed D. E. Moreland manager.

St. Louis, Mo.—Patton & Maginnis Hardware Co. incorporated with capital stock of \$25,000 by Newton R. Patton, Raphael Maginnis and Tillie M. Patton.

St. Louis, Mo.—Manhattan Laundry Co., 4228-4230 Finney street, recently reported incorporated, will erect and equip laundry; building to be 50x160 feet; cost of building \$12,000 and equipment \$3000; president, Fred B. Murphy; vice-president, A. T. Gregory; secretary and treasurer, B. Noonan.

Sulphur Springs, Ark.—Reported that Oscar Kihlberg, Coates House, Kansas City, Mo., will expend \$100,000 for general improvements, etc., at Sulphur Springs.

Terrell, Texas.—R. H. Woodson and E. R. Skinner of the Barnhardt Wholesale Co., St. Louis, Mo., contemplate establishing peanut factory in Terrell.

Tunnelton, W. Va.—Tunnelton Supply Co. incorporated with capital stock of \$10,000 by C. D. Weidenhamer, J. V. Martin, W. L. Hurt, F. W. Smith and others.

Vicksburg, Miss.—Vicksburg Compress & Warehouse Co. incorporated with capital stock of \$50,000 to operate cotton compress and warehouse by R. L. Crook, S. Susman, P. M. Harding, D. J. Shlenker and others.

Victoria, Va.—Victoria Hardware & Furniture Co. incorporated with capital stock of \$25,000; W. C. Lucy of Lawrenceville, Va., president; W. C. Lucy of Victoria, secretary, and A. E. Thomas of Lawrenceville, treasurer.

Waco, Texas.—Jackson Hardware & Buggy Co. incorporated with capital stock of \$15,000 by S. B. Jackson, Allan D. Sanford and J. A. Jackson.

Wallis, Texas.—Wallis Telephone Co. organized with E. F. Louwain, manager, and W. L. Guyler, secretary-treasurer, to establish local telephone exchange and system.

Walton, Fla.—Waters Plantation Co. incorporated with capital stock of \$200,000 by J. T. Waters and others.

Warren, Mo.—Warren Telephone Co. incorporated with capital of \$2000 by T. S. Woody, A. F. Hendricks, J. T. Baird and S. A. Biddy.

Washington, D. C.—Columbia Granite & Dredging Corporation incorporated with an authorized capital stock of \$300,000; George W. Daizell, president, Bond Building; C. E. Hagner, Jr., vice-president; F. A. Clifford, secretary and treasurer.

Washington, D. C.—New York, Philadelphia and Norfolk capitalists are negotiating the purchase of Anaslantan Island, containing 80 acres, and will organize the Island Park Co., Edwin H. Pillsbury, secretary, 1328 New York avenue, to establish an amusement park, expending about \$500,000. About 20 acres will be used for the erection of buildings and the installation of amusement features.

Washington, D. C.—United States Sugar Co. incorporated with capital stock of \$1,250,000 by Samuel U. Cockrell and Clarence Marine, both of Wilmington, Del.

Washburn, Mo.—Washburn Canning Co. incorporated with capital stock of \$24,400 by W. L. Black, Robert Harrison, W. C. Gates and others.

West Plains, Ark.—Home Telephone Co. will be incorporated by W. N. Wicks, Martin Peters, H. J. Rowe and others to build telephone system connecting West Plains, Springfield, Mammoth Springs and other cities.

Wheeling, W. Va.—City proposes to expend \$35,000 for garbage crematory. (See item under Water-works.) Address The Mayor.

Yazoo City, Miss.—Cumberland Telephone Co. is preparing to construct proposed long-

distance telephone line from Jackson, Miss., to Memphis, Tenn.

#### MISCELLANEOUS MANUFACTURING PLANTS.

Archer City, Texas.—J. Perry Burrus of McKinney, Texas, will build flour mill and grain elevator at Archer City.

Arkadelphia, Ark.—Arkansas Roller Mills increased capital stock from \$40,000 to \$125,000.

Atlanta, Ga.—American Signal Co., recently organized to manufacture and introduce an invention for prevention of railroad accidents, has established office at No. 6 Auburn avenue, and will arrange to manufacture or contract for manufacture of its device; Frank L. Malone, assistant general manager.

Atlanta, Ga.—Farmers' National Co-operative Union is planning the establishment of an industrial city at junction of Atlanta & West Point Railroad and Atlanta, Birmingham & Atlantic Railway, 10 miles from Birmingham. The organization controls the Carmichael Implement Co. of Fairburn, Ga., and this company's implement works will be removed to the new city and there enlarged. W. H. Halliday is secretary-treasurer.

Atlanta, Ga.—W. J. Hays & Co. incorporated to deal in and manufacture clothing by W. J. Hays, Gustavus Hoffman and L. B. Allenthal; capital stock \$5000.

Augusta, Ga.—Augusta China Co. will be incorporated with capital stock of \$25,000 to build two-kiln pottery plant by Abram Levy, R. Roy Goodwin and M. J. Hallahan.

Baltimore, Md.—McGraw Concrete Block Co. has been incorporated with capital stock of \$10,000 to manufacture concrete blocks by Wm. J. McGraw, 911 North Payson street; Wm. C. Clift, 215 Courtland street; Wm. L. Morton, Francis P. Curtis, Vincent J. Demarco and others.

Baltimore, Md.—American Fuel Economizer Co., 1001 Union Trust Building, incorporated with a capital stock of \$50,000 to manufacture and sell a device for regulating the combustion of furnaces.

Beaumont, Texas.—J. S. Gordon & Co. will build grist mill and warehouse recently mentioned; size of building, 140x360 feet; three stories; J. B. Brechin, architect, will receive bids on building and J. S. Gordon bids on machinery.

Beebe, Ark.—Business Men's Club is interested in project to establish canning factory. T. M. Woods, secretary, may be addressed.

Bramwell, W. Va.—Bramwell Drug Co. incorporated with capital stock of \$5000 by Julius Collins, R. B. Smith, A. C. Smith and others.

Brenham, Texas.—Brenham Creamery incorporated with capital stock of \$2200 by T. A. Low, F. Jansen, B. Schmidt and others.

Brookfield, Mo.—Brown Shoe Manufacturing Co. has had plans prepared by A. B. Groves, Stock Exchange Building, St. Louis, Mo., for erection of proposed shoe factory building at Brookfield; 50x250 feet; brick and stone; fireproofing; plate glass; composition roofing; fixtures for electric lighting; iron and steel work; estimated cost \$50,000.

Charlotte, N. C.—Reported that Bailey Bros., tobacco manufacturers, have decided on extensive improvements to factory and placed orders for new machinery.

Charlotte, N. C.—Max Jasspon, L. A. Parker and J. E. Dresser have organized the Jasspon Sizing Compound Co. and are establishing plant for manufacture of sizing; offices at 1st and College streets.

Chester, S. C.—Reported that Swift & Co. of Chicago, Ill., and Atlanta, Ga., will establish branch fertilizer factory at Chester.

Cleburne, Ala.—Fruiturst Manufacturing Co. incorporated with capital stock of \$50,000 by A. H. Andrew, F. L. Grant and F. A. Carver.

Cordele, Ga.—G. W. Holt is reported as to establish guano factory.

Darlington, S. C.—Carolina Ice & Packing Co. is reported as to install flour and grist mill.

Dickinson, Texas.—C. B. Garner, Charles Neynaber, M. Lucy and others are interested in plan for organization of company to establish creamery.

Eunice, La.—Eunice Cotton Oil Co. organized with capital stock of \$65,000 by Charles W. Drown, Gus Fuselier, Mayo Miller, Julius J. Stagg and others to build cotton-oil mill.

Florence, Ala.—American Cyanamid Co. is planning to build its first plant of 5000 tons capacity for manufacturing calcium cyanamide (lime nitrogen), a fertilizer derived from air. This plant will be located at Niagara Falls, and upon its completion the company will erect and equip a typical plant of 20,000 tons capacity on the Tennessee river near



Florence, Ala., where arrangements have been made for obtaining electricity from the Muscle Shoals Hydro-Electric Power Co. Other large plants will afterwards be established in the South and East. Officers of the company are: President, Frank S. Washburn of Nashville, Tenn.; vice-president, Charles H. Baker of New York; treasurer, A. H. Robinson of Nashville. These three and Thomas F. Oakes and Henry Parsons of New York, Abram C. Read of Nashville and J. W. Worthington of Sheffield, Ala., are the directors. Offices of treasurer in Cole Building, Nashville, Tenn. Offices of vice-president at 100 Broadway, New York city. (This company lately noted as incorporated with capital stock of \$5,000,000 and particulars of its plans previously presented by the Manufacturers' Record.)

Fort Smith, Ark.—Reported that the Globe Soap Co. of Cincinnati, Ohio, is contemplating the erection of branch factory at Fort Smith.

Fort Worth, Texas.—Fort Worth Creamery Co., recently reported incorporated, will establish plant for the production of butter, ice-cream and milk. Sterilizing and condensing machinery will soon be installed; president, S. M. Lawson; secretary and treasurer, Ben Lawson.\*

Fort Worth, Texas.—Fort Worth Mattress & Comfort Manufacturing Co., incorporated with capital stock of \$25,000 by W. M. Dugan, W. L. Scott and W. C. Strong.

Fort Worth, Texas.—Texas Overall Co. has purchased site at \$1750 for the erection of a factory building to cost \$12,000 for overall-manufacturing plant.

Greeley, Ark.—George Bodenhelm of Siloam Springs, Ark., and George Brasse of Decatur, Ark., have formed Ozark Fruit & Manufacturing Co. to establish elder and vinegar factory at Greeley.

High Island, Texas.—High Island Hydraulic Stone Works, recently reported incorporated, will operate plant to cost \$7500; to produce 2000 blocks per day; J. L. Hooper, engineer and architect; C. T. Cade, vice-president, secretary and treasurer.\*

Hinton, W. Va.—Bierley Fountain Brush Co., incorporated with capital stock of \$25,000 by R. C. Charlton, L. C. Hutchins, E. E. Hughes and others.

Houston, Texas.—McCullough Flg Syrup Co. will build can syrup mill with daily capacity of 400 tons of cane, 10,000 barrels or 50,000 gallons, cost to be about \$50,000. Company has increased capital stock from \$25,000 to \$75,000 for this purpose. Contracts reported awarded for machinery, and construction has begun.

Houston, Texas.—Houston Can Manufacturing Co., recently mentioned as making improvements to plant, will erect and equip iron building, 50x100 feet, at cost of \$9000; capacity of plant 20,000 can daily; president, P. M. Granberry.

Jacksonville, Fla.—C. W. Bartleson Company contemplates installing grist-mill equipment.

Juliette, Ga.—Juliette Milling & Glover Manufacturing Co. will erect and equip frame building at cost of \$12,000 to \$15,000 for the production of cornmeal; three-story building; 80x100 feet; president, S. R. Jaques; manager, W. P. Glover; materials and machinery have been purchased; principal address, Macon, Ga. (Mentioned recently.)

Kansas City, Mo.—Stepney Spare Motor Wheel Co., incorporated with capital stock of \$1,000,000 by Lester E. Brayles of Kansas City and George W. Klerstead.

Kansas City, Mo.—Swain Medicine Co., to manufacture medicines, with capital stock of \$50,000, by J. S. Swain, E. G. Bush and H. A. Swain.

Kansas City, Mo.—Oklahoma Portland Cement Co., incorporated with capital stock of \$30,000 by J. H. Harrington, C. C. Courtney and W. D. Vickers of Kansas City, J. D. Robinson of Independence, Mo.; Jacob Geiger, John E. Dolman, Andrew Wank and J. M. Heller of St. Joseph, Mo.

Kansas City, Mo.—Carnie-Goudie Manufacturing Co., incorporated with capital stock of \$100,000 by L. R. Goudie, H. G. Carnie, O. W. Pratt and Thos. H. Reynolds.

Louisville, Ky.—Henry L. Koehler Manufacturing Co., incorporated with capital stock of \$40,000 by Henry L. Koehler, Charles A. Koehler and Luther O. Rutherford.

Meridian, Miss.—Magnolia Canning & Manufacturing Co., incorporated with capital stock of \$10,000 by S. H. Neville, Gus C. Kendall, Charles B. Rushing and others.

Minden, La.—R. B. Pace of Shreveport, La., is mentioned as interested in proposition to establish cannery.

Montgomery, Ala.—E. W. Cole of Charlotte, N. C., will establish plant for the

manufacture of farming machine; factory is to be built. It is contemplated later to manufacture general line of farm implements.\*

Nashville, Tenn.—Southern Watch Co., incorporated with capital stock of \$100,000 by H. R. Walling, O. E. Bell, C. C. Breeze and John T. Landis.

Nashville, Tenn.—Kemker-Woolwine Candy & Cracker Co. has reorganized and contemplates building a bakery to cost \$100,000, combining its present four factories in the new establishment. Jos. H. Thompson is president and James Hapson general manager.

Newbern, N. C.—W. C. Willett will establish plant for manufacturing agricultural implements.

New Birmingham, Texas.—New Birmingham Brick Co. will overhaul and put in operation its brick plant; not in operation for some time.

Oklahoma City, O. T.—Max Hahn of Dallas, Texas, and Robert L. James of Amarillo, Texas, will purchase Oklahoma City Packing Co. and plant for \$120,000 and resume the operation of the packing plant.

Paducah, Ky.—Paducah Tannery Co. has received plans and specifications by A. L. Lassiter for erection of additional building recently reported; structure to be 122x133 feet in dimension; company lately noted incorporated with capital stock of \$30,000. J. A. Bauer is president.

Rich Hill, Mo.—H. M. Booth of Rich Hill and Jas. F. Hedges of Springfield, Mo., have purchased the Rich Hill Brick and Tile Works. They will overhaul the plant, improve it, and install equipment for manufacturing paving and building bricks, sewer and drain tiles.

Richmond, Va.—American Glass Works incorporated with capital stock of \$60,000; C. F. Sauer, president; F. Sitterding, vice-president, and S. B. Dunstan, secretary-treasurer; location, 10 South 21st street. (Mentioned last week.)

San Antonio, Texas.—English Novelty Shirtwaist Co. of Punxsutawney, Pa., is reported as proposing to establish branch manufactory in the Southwest.

Shelbyville, Tenn.—Robinson-McGill Manufacturing Co. will increase its output for manufacturing fine harness. See item under Nashville, Tenn., in Miscellaneous Manufacturing Plants.

Siloam Springs, Ark.—O. L. Gregory Vinegar Co. of Paducah, Ky., and Fort Worth, Texas, has purchased site for plant recently noted to be located in Siloam Springs. Equipment will include three hydraulic grinders and presses with daily capacity of 120 barrels of elder; steam cooker operated by 20-horse-power boiler for evaporating elder and manufacturing jelly; reported that machinery has been purchased.

St. Augustine, Fla.—F. O. Iwanowski will establish boat yards; he will erect dry-dock and shed 50x100 feet, install woodworking machinery, etc.

St. Louis, Mo.—Genzberger Manufacturing Co., incorporated with capital stock of \$3000 by Michael Genzberger, Earl Bishop and others.

St. Louis, Mo.—Hoyt Jewelry Co., incorporated with capital stock of \$25,000 to manufacture and deal in jewelry by Winton E. Barker of St. Louis and Frederick W. Hoyt and James B. Wilde of Kirkwood, Mo.

St. Louis, Mo.—St. Louis Gravity Lock Co., capitalized at \$10,000, incorporated by Oscar Wiegmann, Clair L. Smith and Alphonso Knighton.

St. Louis, Mo.—Ralston Oil & Grease Co., incorporated with capital stock of \$3000 by Robert C. Ralston, Charles A. Ralston and others to manufacture oils and greases.

St. Louis, Mo.—Kelly The Printer incorporated with capital stock of \$25,000 by Chas. F. Kelly and Mary G. Kelly of St. Louis and Chas. A. Proemser of Lakewood, Mo.

St. Louis, Mo.—St. Louis Car Co. will increase capital stock from \$3,000,000 to \$6,000,000, thus providing for betterments that have been made during the past several years and for future extension that may be decided on.

Tampa, Fla.—Calixto Lopez of Havana, Cuba, will establish cigar factory in Tampa. He has commissioned J. H. Drew of Tampa to prepare plans for erection of four-story, 45x125-foot brick building.

Valdosta, Ga.—Valdosta Marble Works, L. H. Warlick, manager, will erect two-story brick and marble building to provide for increasing marble-working facilities.

Washington, N. C.—Pamlico Chemical Co., incorporated; president, J. F. Cowell; secretary, Richard Brogaw; will manufacture fertilizers; plans for building and equipment not yet decided.

Winchester, Ky.—Will Clark and Oscar Weaver will establish an overall factory.

#### ROAD AND STREET IMPROVEMENTS.

Athens, Ala.—Lauderdale county has appointed commission to direct expenditure of recently-voted \$135,000 for road improvements. Clinton D. Glaze, chairman; William T. Hatchett, Marcum C. Easter, Bradley Bibb and Robert Hanserd.

Baltimore, Md.—Board of Awards, care City Register, City Hall, will receive bids until August 14 to grade, curb, gutter and pave with sheet asphalt, asphalt blocks, vitrified brick or bitulithic Wilkens avenue from Wilkens street to southern city limits, and to grade, curb, gutter and pave with macadam 7th street from North avenue to Northwest street; certified check required with bids and usual rights reserved.

Belair, Md.—Harford County Commissioners awarded contract to J. W. Silver & Co. for macadamizing six and a half miles of road.

Catlettsburg, Ky.—Boyd County Supervisors awarded contract to Lynd & Blankenship for macadamizing Ashland road; amount \$5000.

Charleston, W. Va.—City Council has adopted ordinance to vote on issuing \$170,000 in bonds for street improvements. Address The Mayor.

Columbia, S. C.—City has engaged Jas. J. Ludlow of Winston-Salem, N. C., to prepare plans and specifications for paving Main street; plans to be completed within 60 days, and bids will then be invited for paving, storm sewers, etc.; asphalt, bitulithic, vitrified brick and Belgian blocks will be considered. (Mentioned recently.)

Durham, N. C.—Plans are being prepared for extending Durham and Roxboro county road a distance of 10 or 12 miles, and contract will be let; work to include excavation and six-inch macadam; C. White, engineer in charge.\*

Jackshoro, Tenn.—Campbell County Road Commissioners have adopted plans and specifications for proposed road improvements and are inviting bids, to be opened September 3. R. B. Baird, Henry Miller, Wm. M. Keeney, commissioners.\*

Kings Mountain, N. C.—City to expend portion of \$50,000 bond issue for improving streets. See item under Water-works. Address The Mayor.

Knoxville, Tenn.—Knox County Road Commission awarded contracts for rebuilding and repairing roads and pikes, about \$26,000 to be expended. Contracts awarded to R. W. Jones & Co., A. Blagotte, Lee & Smith.

Mobile, Ala.—Board of Public Works has accepted plan for further paving improvements, as outlined by E. T. Smith, city engineer; \$210,000 to be expended. Forms of proposals and specifications will be prepared promptly.

Norfolk, Va.—Board of Control has let contract to Barber Asphalt Paving Co., Philadelphia, Pa., for 5300 square yards sheet asphalt paving. (Mentioned recently.)

Pine Bluff, Ark.—Sidewalk District No. 1 has decided to expend approximately \$10,000 on proposed sidewalks noted August 1. W. A. Parks is City Engineer.

Wheeling, W. Va.—City proposes to expend \$300,000 for improvements to streets and alleys and for grading. See item under Water-works. Address The Mayor.

Winchester, Ky.—Fiscal Court of McCracken county will vote in November on issuing \$100,000 of bonds for building gravel roads; 200 miles of road contemplated. Address County Commissioners.

#### SEWER CONSTRUCTION.

Birmingham, Ala.—City will postpone until October proposed election to vote on issuing \$400,000 for sewer construction. Address The Mayor.

Bogalusa, La.—Grant Southern Lumber Co., W. M. Goodyear, president, Ellicott Square, Buffalo, N. Y., is reported to have awarded contract for construction of the proposed municipal sewerage system, which will cost \$170,000.

Chester, W. Va.—City has let small contract for sewerage and contemplates establishment of larger system in the near future; Mayor, Frank G. Chapman. (Mentioned recently.)

Columbia, S. C.—Sewerage committee has ordered A. W. Edens, city sewer inspector, to prepare plans and specifications for construction of a lineal mile of sewers.

Houston, Texas.—City has decided on installation of three sewage ejectors, and is now inviting proposals. Address The City Secretary.\*

Kingfisher, O. T.—City has voted the proposed \$10,000 bonds for sewer improvements. Address The Mayor.

Oklahoma City, O. T.—City proposes to expend \$150,000 for extension of sewers. See item under Water-works. Address The Mayor.

Sumter, S. C.—City will probably engage W. W. Lyon of Palatka, Fla., as engineer to prepare plans and specifications and have charge of construction of proposed sewer system recently mentioned. Bonds for \$50,000 have been voted for this work. C. M. Hirst is secretary of Sewerage Commission.

Webster Groves, Mo.—City has completed arrangements for proposed sewer construction, and will open proposals August 19. Work to include septic disposal plant of 70,000 gallons capacity daily, 50,800 feet of sewer pipe from 9 to 18 inches in diameter, 54 flush tanks, 42,800 feet of 9 to 15-inch pipe, 49 flush tanks, septic disposal plant of 12,000 gallons capacity daily, etc. Specifications by R. E. McMath Surveying Co., 328 Lincoln Trust Building, St. Louis, Mo. Maps and profiles can be seen at office of Robt. E. McMath, sewer commissioner, 512 Bonaparte avenue, Webster Groves; E. S. Hart, Mayor.\*

#### TEXTILE MILLS.

Abbeville, S. C.—Reported that the Commercial Club is interested in a plan to form company to build cotton mill.

Bessemer City, N. C.—George Bros. will build cotton mill as reported last week, but will not arrange details or begin construction until next year.

Blacksburg, Va.—Blacksburg Knitting Mills organized with capital stock of \$35,000 by J. H. Woolwine, president, and M. F. Slusser, secretary-treasurer, to establish hosiery mill.

Chapin, S. C.—Chapin Manufacturing Co., organized with capital stock of \$60,000 to build mill and install 3000 spindles, increasing to 5000 spindles in the future; to manufacture hosiery yarns for Ashley Manufacturing Co., hosiery manufacturer, Newberry, S. C. J. A. Blackwelder, B. B. Reid and others of the Ashley Manufacturing Co. are interested. (Mr. Blackwelder was lately reported as to build cotton mill.)

Chattanooga, Tenn.—Vachovia Mills will build a cotton factory to be equipped with 100,000 spindles and 2500 looms, also a finishing plant for the production of the factory. This company has been previously referred to by the Manufacturers' Record. It was incorporated last year with a capital stock of \$1,500,000 by W. I. Young, Laven M. Thomas, Battle McAlester, Charles W. Rankin, J. H. Thomas and T. T. Rankin. Its plans provide (besides the cotton mill) for constructing a \$500,000 railroad bridge across the Tennessee river in order to provide for the development of the properties (40,000 acres of coal lands) of the Chattanooga Company, Ltd., ensuring an outlet for the coal of that company and others operating on Waldens Ridge. The location for the mill is on Waldens Ridge. W. I. Young, general manager, can be addressed for information. He is temporarily at the St. James Hotel, New York.

Cumberland, N. C.—Reports state that J. Fred Houston & Co. will build another cotton mill. They are now operating 5630 spindles at Cumberland, James B. Driver being superintendent; offices of Houston & Co. at 704 Provident Building, Philadelphia, Pa.

Dallas, Texas.—Dallas Waste Mills has awarded contract for erection of 100x150-foot addition lately reported; plans by Hubbell & Greene; contract has been awarded for \$8000 worth of new machinery.

Durham, N. C.—It is contemplated to organize company to establish plant for manufacturing handkerchiefs, and the industry is being investigated. Messrs. Giles & Sykes, First National Bank Building, can give information.\*

East Monro (not a postoffice), N. C.—Turner Mills Co., reported incorporated last week with capital stock of \$150,000, has organized with W. D. Turner of Statesville, N. C., president; C. M. Steele of Statesville, vice-president, and A. A. Shuford, C. M. Steele and W. W. Turner, executive committee. Company has purchased water-power and will develop 350 horse-power for operating the proposed mill; later to include two-story building large enough to accommodate 10,000 spindles; will also build operatives' cottages and provide village improvements; C. H. Lester, superintendent of construction. Address Turner Mills Co., W. D. Turner, president, Box 175, Statesville, N. C. Cotton thread will be manufactured.

Fort Valley, Ga.—C. S. Taylor and A. G. Caruthers propose to organize the Fort Valley Yarn & Hosiery Mills with capital stock of \$10,000.

Kannapolis, N. C.—Cannon Manufacturing Co. of Concord, N. C., is progressing with

erection of 30,000-spindle and 900-loom mill, of which details have previously been stated. Spinning-room, one story high, 125x600 feet, is under cover; 125x400-foot weave shed will soon be completed; bleaching building, 75x200 feet, is in course of erection; warehouse and finishing building, three stories, 100x300 feet, also progressing. Patterson Manufacturing Co. of China Grove, N. C., is progressing with its mill, to have 20,000 spindles and 600 looms; walls partially up for 125x580-foot structure, with 75x100-foot wing. Seventy-five operatives' cottages are being built, and general town facilities, such as electric-lighting plants, water-works, etc., are being provided. T. C. Thompson & Bros. of Birmingham, Ala., are contractors at \$350,000 for the Cannon and Patterson mill buildings. About \$1,500,000 will be the cost of both plants when completed. J. W. Cannon of Concord, N. C., is president of Cannon Manufacturing Co. and Patterson Manufacturing Co. Stuart W. Cramer of Charlotte, N. C., is their mill engineer-architect in charge, and has awarded contracts for the textile machinery. Electricity for driving machinery will be furnished by the Southern Power Co. of Charlotte, N. C.

Lexington, Ga.—Reported that W. H. Arnold will build knitting mill, installing water-power plant to drive the machinery.

Marion, S. C.—Marion Manufacturing Co. states there is no truth in rumor mentioned last week that it will build another mill.

Mocksville, N. C.—E. L. Gaither, J. L. Sheek, T. J. Byers and others are organizing company with capital stock of \$50,000 to build cotton mill.

Rock Hill, S. C.—Harriss Manufacturing Co. has begun the erection of building and will add a collar-pad department to its cotton-yarn mill, which has been in operation. No machinery or supplies have been purchased, and they will be wanted; Wm. H. Harriss, president.\*

Spartanburg, S. C.—John B. Claveland, Elisha Bomar, George S. Begg, Horace Bomar and others are organizing company to build cotton mill; equipment will probably be 10,000 spindles.

Statesville, N. C.—Bloomfield Manufacturing Co., recently mentioned, will build 90-foot addition and increase equipment probably 50 per cent.; contract for addition awarded to J. O. Gaither; present equipment of mill 4700 spindles.

St. Pauls, N. C.—St. Pauls Cotton Mill Co., recently reported incorporated with capital stock of \$100,000, has organized with L. Shaw, president; J. M. Butler, vice-president, and A. R. McEachern, secretary-treasurer. Plans are now being made to build 5000-spindle yarn mill; W. D. McNeill of Fayetteville, N. C., probably engineer in charge.

Valdosta, Ga.—Atlantic & Gulf Mills is reported to have awarded contracts for additional new machinery to cost \$20,000.

#### WATER-WORKS.

Arcadia, La.—Reported that arrangements will be made for constructing water-works. Arcadia Progressive League can probably give information.

Atlanta, Ga.—City will soon consider plans to complete the new reservoir. J. M. Clayton, City Engineer, is about to report on the proposed work and has estimated the cost at \$75,000; \$50,000 for excavation and construction of dam and \$25,000 for intake, overflow tower and biconnections; estimated that 125,000 cubic yards of earth will be removed; dam to be 81 feet high; 28 feet remains to be constructed.

Beebe, Ark.—City contemplates installing water-works. See "Electric and Gas Plants." Address The Mayor.

Blacksburg, Va.—City is considering the construction of water-works. Address The Mayor.

Bogalusa, La.—E. N. Cunningham is about to begin construction of the water-works system for which he received contract recently; plant to include artesian wells, 1,000,000-barrel concrete basin or tank under ground and covered with concrete, steel water tower 150 feet high, 10-inch mains, etc.; to be completed within four months.

Cloverport, Ky.—C. W. Hamman will apply for municipal franchise to install water-works to supply water for streets and eventually furnishing water to business buildings. It is stated he has ordered gasoline engine and derrick, erection of 1200-gallon reservoir, etc.

Cornelia, Ga.—City will vote August 13 on issuance of \$15,000 of bonds for water-works and electric-light plant. Address The Mayor.

Gadsden, Ala.—City Council has adopted ordinance to purchase \$60,000 of bonds of Gadsden Water Co. and thus obtain control

of the plant, which it is planned to improve extensively. Address The Mayor.

Kings Mountain, N. C.—City has voted the proposed issuance of \$50,000 in bonds for construction of water-works, electric-light plant, improved streets and school buildings. Address The Mayor.

Lewisburg, Tenn.—City has had plans and specifications prepared by Geo. Cadogan Morgan, 908 Royal Insurance Building, Chicago, Ill., for construction of water-works, for which \$40,000 of bonds was reported voted in May; plant to include standpipe, cast-iron piping, etc. Proposals will be opened August 20 by C. C. Dabney, Mayor.\*

London, Ky.—J. B. Eberlein is president of London Water Co., recently noted or organized and about to establish water-works.

Lufkin, Texas.—City Water Committee is investigating the advisability of providing a filter system for the municipal water supply. Possibly new artesian wells will be drilled.

Oklahoma City, O. T.—City Council has formulated plan to call a vote on issuance of bonds for proposed improvements—\$175,000 for enlarging water system and \$150,000 for extending sewers; vote to be held September 18. Address The Mayor.

Seminole, Texas.—Seminole Water-Works Co. organized, with capital stock of \$10,000, to drill artesian well and install plant for distributing the water obtained. H. C. Whitfield is manager.\*

Taylor, Texas.—Taylor Water Co. is planning to provide for increased water supply, improvements to include laying about 20,000 feet of pipe, installing heavier pump and engine at pumping station, etc. L. W. Chase of Cleburne, Texas, is general manager.

Tifton, Ga.—City will vote August 6 on proposed \$15,000 in bonds for extending water-works and \$15,000 for sewerage system; S. M. Clyatt, Mayor.

Wheeling, W. Va.—The Finance Committee has reported plan for calling of election to vote on the proposed issuance of \$1,075,000 of bonds for public improvements—\$35,000 for garbage crematory, \$65,000 for market-house, \$175,000 for gas works, \$500,000 for water-works, \$300,000 for streets, alleys and grading. Address The Mayor.

#### BURNED.

Albertville, Ala.—Butler-Keyser Oil & Fertilizer Co.'s oil mill.

Baltimore, Md.—Yeast-manufacturing plant of Fleischmann Company of Cincinnati, Ohio; loss about \$15,000.

Baltimore, Md.—Charles T. Foster & Co.'s burlap bag factory at 921 South Wolfe street; building owned by American Ice Co.; loss about \$40,000.

Beckville, Texas.—Biggs & Porter's planing mill and cotton gin; loss reported at \$10,000.

Bufo, Miss.—B. A. Summer's sawmill; loss \$5000.

Dry Branch, Ga.—Atlanta Mining & Clay Co.'s warehouse; loss \$15,000; offices at West Point, Ga.

Hallwood, W. Va.—Gordy & Chanler's sawmill; loss \$4000.

Hillsboro, Texas.—Hillsboro Mill & Elevator Co.'s flour mill, owned by J. W. McCreary of Franklin, Texas.

Jacksonville, Fla.—Armour Fertilizer Co.'s plant; loss \$80,000.

Little Rock, Ark.—Arkansas Boat Oar Manufacturing Co.'s plant.

Little Rock, Ark.—Buddenger Furniture Co.'s factory reported damaged to extent of \$20,000.

Malvern, Ark.—J. T. Chamberlain's saw and planing mill and cotton gin in Antioch township; loss \$4000.

Oriental, N. C.—Defiance Box Co.'s sawmill and box factory; loss \$50,000.

Ruston, La.—Thompson, Ritchie & Co.'s store building; loss reported at \$15,000. Southern Express Co.'s office building. Swift & Co.'s building. Vicksburg, Shreveport & Pacific Railway Co.'s depot reported burned at loss of \$15,000; D. D. Curran, general manager, New Orleans, La.

Velasco, Texas.—Surfside Hotel Co.'s hotel; loss \$15,000.

Washington, D. C.—Store and office building of the Hudson Variety Stores at 932-936 F street N. W.; loss \$10,000.

#### Paints for All Purposes.

An active season has been closed by the Blatz Paint & Varnish Co. of Louisville, Ky., in the manufacture and sale of paints for various purposes. Recent orders of the company have been largely for house paint, for both outside and inside work, bridge and carriage paints. The company is distributing a card showing 36 shades of its Blue Grass paint.

#### BUILDING NOTES.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Abbeville, S. C.—Bank Building.—The Farmers' Bank, Frank E. Harrison, president, will erect bank building at cost of \$10,000; architects, Edwards & Walter, Columbia, S. C.; steam or hot-water heating; electric lighting.

Alabama City, Ala.—School Building.—Dwight Manufacturing Co. has awarded contract to J. H. Haynes of Gadsden, Ala., for erection of school building recently mentioned; contract to another builder was recalled.

Alto, Texas.—Warehouse.—Farmers' Union Warehouse Co. will erect brick warehouse to cost \$3000; 75x125 feet; contractor, Dick Fugua; manager, F. D. Bordenhamer.

Anderson, S. C.—Railway Stations, etc.—Charleston & Western Carolina Railway Co. will make but few improvements this year. (Recently incorrectly reported.)

Anniston, Ala.—Warehouse.—Farmers' Union Warehouse Co., recently organized, awarded contract to the Fireproof Construction Co. of Atlanta, Ga., for erection of proposed warehouse, 140x325 feet; fireproof; reinforced concrete construction; for cotton storage; cost \$16,000; to be completed in 60 days.

Athens, W. Va.—Hotel.—Mercer Healing Springs Co. incorporated with capital stock of \$50,000 to build hotel, etc., by R. G. Meador, Joseph Caldwell, R. H. Fletcher and others.

Atlanta, Ga.—Clubhouse.—Atlanta Athletic Club building, recently noted to be erected, will be 104x128 feet; frame; three stories and basement; cost about \$40,000; architect, H. L. Walker, Candler Building; contractors, Gude & Co.

Atlanta, Ga.—Residence.—Hugh T. Inman has adopted plans and specifications by E. E. Dougherty for erection of residence; blue rubble stone; red tile roof; contract awarded to I. N. Brown; cost \$20,000; interior finish to cost \$15,000 and contract not awarded.

Austin, Texas.—Office Building.—Scarborough & Hicks have had plans prepared for erection of eight-story office building.

Austin, Texas.—Store Building.—John H. Chiles, 616 Congress street, will erect store building four stories high.

Baltimore, Md.—Store.—John Freund, Jr., architect, 210 East Lexington street, has distributed plans for two-story store building to be erected at 525½ and 527 North Gay street for John Lange. Estimating are George Bunnecke & Sons, 305 St. Paul street; Frederick Decker & Son, 1209 East Biddle street; J. Henry Miller, 106 Dover street; Morrow Bros., 216 West Saratoga street; William H. Porter & Son, 505 Forrest street; Joseph Schamberger, 2122 East Baltimore street; Charles W. Simpson, 415 East Lexington street; T. B. Stanfield & Son, 109 Clay street; Edward Walters & Co.; Henry Pierson & Son, 1000 Goodman alley; McLaughlin Bros., 100 East Lexington street; bids to be submitted August 15.

Baltimore, Md.—Business Building.—Dr. W. J. Gascoyne, 2741 North Charles street, awarded contract to Henry S. Rippel, 7 Clay street, for erection of two-story building at 27 South Gay street. Structure will be 21x78 feet; of brick, stone and terra-cotta; tin roof; steam heat; electric wiring; sanitary plumbing, etc.; cost about \$7500; Worthington & Ahrens, architects, 522 Law Building.

Baltimore, Md.—Y. M. C. A. Building.—Baltimore & Ohio Railroad Department Young Men's Christian Association, Charles and Baltimore streets, has distributed plans and specifications for proposed structure to be erected at Barney and Suffolk streets; building to be two stories and attic, of pressed brick and cut-stone trimmings, 100x20.6 feet; to contain gymnasium class and reading-rooms, locker-room, bowling alley, sleeping-rooms, etc.; steam heat; electric lighting; sanitary plumbing. Estimating are John Waters, 23 East Center street; Edward Brady & Son, 1109 Cathedral street; Wells Bros. Company, 410 Union Trust Building, Charles and Fayette streets; Henry S. Rippel, 7 Clay street; George Bunnecke & Sons, 305 St. Paul street; Milton C. Davis, 5 Hopkins place; estimates to be submitted August 13; Morris A. Long, architect.

Baltimore, Md.—Truckhouse.—E. D. Preston, Building Inspector, City Hall, has distributed plans for proposed truckhouse No. 15 to be erected at Montford avenue and Mura street. Estimating are Milton C. Davis, 5 Hopkins place; James F. Farley, 43 Franklin Building, North and Baltimore streets; B. F. Bennett, 123 South Howard

street. Estimates to be submitted to Board of Awards, City Hall, on August 7.

Baltimore, Md.—Dwellings.—W. B. McCordell, Baker and Monroe streets, will erect 16 two-story dwellings on west side of Friendsbury place, between Preastman and Baker streets; structures to be 13.3x46.6 feet; cost about \$22,500; John R. Forsythe, architect, 2333 Linden avenue.

Baltimore, Md.—Dwellings.—A. Rosenthal will erect four two-story brick dwellings at 123-29 East Lexington street, to cost about \$5000.

Baltimore, Md.—Dwellings.—Edward J. Storck, 86 Gunther Building, will erect 13 two-story brick dwellings on the west side of Hare street, near Fairmount avenue, to cost about \$10,500.

Baltimore, Md.—Store.—John Hiltz & Sons, 3 Clay street, have contract to erect two-story building at 213 North Liberty street for Anton H. Fetting; J. E. Laferty, architect, 11 East Pleasant street.

Baltimore, Md.—Store Building.—J. J. Knight & Sons, 106 Clay street, have contract for addition and alterations to building of Read Drug Co. at Howard and Lexington streets; Louis Levi, architect, American Building, Baltimore and South streets.

Baltimore, Md.—Church.—Highland M. E. Church, Highland avenue and Pratt street extended, will erect edifice 55x64 feet; structure to be of concrete block with tooled surface, interior and exterior.

Baltimore, Md.—Armory.—Fifth Regiment Veteran Corps, 9 East Franklin street, will improve building at 1112 Madison avenue, installing heating plant, electric lights, bowling alleys, billiard-room, drill hall, etc.; cost about \$8000.

Baltimore, Md.—Postoffice.—The Treasury Department, Washington, D. C., James Knox Taylor, supervising architect, will distribute plans and specifications on August 7 for a one-story addition to postoffice building, for which \$125,000 has been appropriated.

Baltimore, Md.—Dwelling.—H. Clay Shelley, contractor, has been awarded contract to erect proposed dwelling for Abraham Mendels on Park Heights avenue after plans by Louis Levi, architect, American Building, South and Baltimore streets. Structure will be three stories, 30x38 feet; frame construction, with slate roof; cost about \$9000.

Baltimore, Md.—Dwellings.—McIver & Piel, builders, 2315 Edmondson avenue, have completed plans for 50 two-story dwellings to be erected on Edmondson avenue between 2d and 4th streets; structures will be of brick with bay windows and porch fronts; steam heat; electric lights; hardwood finish, etc.; 47 will be 16x55 feet and three will be 17x55 feet; estimated cost, \$100,000.

Baltimore, Md.—Warehouse.—George Harman & Bro., 408 North street, have awarded contract to J. Henry Miller, contractor, 106 Dover street, for the erection of proposed warehouse at 410 North street; structure will be four stories high, 27.9x94 feet, of mill construction; cost about \$7000; A. Henry Krone, architect, 2811 York road.

Baltimore, Md.—Dwelling.—John R. Forsythe, architect, 2333 Linden avenue, has completed plans for dwelling to be erected for Harry E. Gilbert on Park Heights avenue; frame construction; 10 rooms and baths; steam heat; electric and gas fixtures; sanitary plumbing; slate and shingle roof; cost about \$7000.

Baltimore, Md.—Dwellings.—Park Manor Realty Co., 806 American Building, Baltimore and South streets, has purchased lot on Park avenue, 77x151.8 feet, to erect dwellings.

Banks, Ark.—Warehouse.—Banks Farmers' Union Warehouse Co. incorporated with capital stock of \$2000 and D. H. Frizzell, president.

Banks, Ark.—Warehouse.—Banks Farmers' Union Warehouse Co. incorporated with capital stock of \$10,000 by J. W. Nichols, D. M. Owens, D. H. Frizzelle and others.

Barboursville, Ky.—Academy Buildings.—Barboursville Baptist Institute will let contract to John Pitman for annex to main building; cost \$15,000; six rooms and chapel; ordinary construction. Dormitory will also be erected; president board of trustees, John Parker. Prof. H. L. Pitman may be addressed.

Barnesville, Ga.—Residence.—Mrs. J. L. D. Woodburn has let contract for erection of residence to cost \$5000.

Beaumont, Texas.—Residence.—H. Harris will erect residence; cost about \$3500; plans prepared by J. B. Brechin; bids are being received.

Beaumont, Texas.—Dwellings.—Mrs. Ella C. Call will build 40 to 50 dwellings costing from \$1000 to \$5000 each.



Beaumont, Texas—Store Building.—Helsig & Norvell will erect store building four or five stories high.

Beaumont, Texas—Residence.—I. Rosenstrauch will erect residence; plans prepared by J. B. Brechin; probable cost \$4500; bids are being received.

Beaumont, Texas—Market and Fire Stations.—City has voted the proposed bond issue of \$20,000 to build market-house and of \$20,000 to build three fire stations. Address The Mayor.

Beaumont, Texas—Fire Stations and Market.—City contemplates completing details of arrangements in the near future for erecting proposed \$20,000 market, previously mentioned, and three fire stations, to cost \$20,000. Address The Mayor.

Bessemer, Ala.—Warehouse.—David H. Fulton, Wm. H. Dennis and J. B. Morton have been appointed a committee to arrange for erection of farmers' warehouse; building to cost \$10,000.

Birmingham, Ala.—Business Building.—C. A. O'Neil has building permit for proposed two-story brick business structure to cost \$12,000.

Birmingham, Ala.—Freight Depot.—St. Louis & San Francisco Railroad is to consider soon the plans and specifications for freight depot to be erected next year; J. F. Hinckley, chief engineer, St. Louis, Mo.; A. S. Blodgett, general bridge foreman, Birmingham, Ala.

Bowling Green, Va.—Office Building.—Caroline County Commissioners have awarded contract to B. F. Smith Fireproof Construction Co. of Washington, D. C., for erection of proposed fireproof county record-room; contract price \$5257; architect, M. C. West, Richmond, Va. (Recently mentioned.)

Charleston, W. Va.—Business Block.—The Myers Company incorporated with capital stock of \$200,000 to erect business block five or six stories high, 50x120 feet, by Geo. S. Crouch and Fred Paul Grosscup of Charleston, T. E. Myers and P. A. Myers of Ashland, Ohio, and others.

Charleston, W. Va.—Warehouse.—Mathews Storage Co. incorporated with capital stock of \$50,000 by J. M. Mathews, R. L. Mathews and others.

Charlotte, N. C.—Cotton Warehouses.—Mecklenburg County Cotton Growers' Association will form corporation with capital stock of \$100,000 to build cotton warehouses of modern design and fireproof construction. W. M. Long is chairman and Ray Lee secretary, and a committee will arrange plan of organization.

Charlottesville, Va.—Residence.—Thos. S. Martin will build residence; colonial style; pressed-brick construction; heating plant, probably steam; electric lighting fixtures; cost \$50,000.

Chester, W. Va.—City Building.—City will vote September 15 for bond issue of \$10,000 for erection of city building and purchase of fire equipment. City voted negatively on issue recently mentioned; Frank G. Chapman, Mayor.

Clarendon, Ark.—Warehouse.—Clarendon Farmers' Union Warehouse Co. incorporated with capital stock of \$5000 and T. T. Bate-man, president.

Clinton, S. C.—Store Buildings.—Jack Young will build three three-story store structures.

Columbia, S. C.—Residence.—S. M. Clarkson will build residence.

Columbus, Ga.—Warehouse.—Farmers' Union Warehouse Co. incorporated with capital stock of \$5000 by S. D. McMurran, R. H. Hollis, C. G. Gordy and associates.

Cullman, Ala.—Home.—I. O. F. Home will be built at cost of \$20,000; will be two stories and basement; 100x60 feet; fireproof; steam heat; electric lighting; bids to be opened September 2; John Ellis, Anniston, Ala., chairman board of trustees. (Additional facts mentioned August 1.)

Dallas, Texas—Hotel.—Charles O. Hodges has ordered plans and specifications for his proposed 10-story addition to St. George Hotel; steel construction; 50x90 feet.

Dallas, Texas—Residence.—E. O. Tenison is having plans prepared for erection of residence.

Dallas, Texas—Office Building.—Capt. C. E. Brown of Wills Point, Texas, has purchased the North Texas Building and will convert it into a modern office structure.

Dallas, Texas—Residence.—Jeff D. Aldredge has permit to erect proposed residence; two-story frame; architects, Sangunett, Staats & Hill; contractor, O. L. Wiley; cost \$938.

Dallas, Texas—Warehouse.—John Deere Plow Co.'s warehouse, recently mentioned, will cost \$50,000; contractor, J. W. Slaughter Construction Co.; building to be 100x100 feet;

three stories and basement; mill construction; electric lighting; electric elevators.

Dallas, Texas—Roundhouses.—Missouri, Kansas & Texas Railway is understood to be planning to begin construction on proposed improvements, including erection of roundhouses and coal chutes, additional trackage, etc., in connection with general betterments, for which it is reported \$300,000 will be expended; A. A. Allen, general manager; J. J. Petheram, chief engineer.

Danville, Ky.—College Buildings.—Caldwell County College has appointed committee to secure plans and specifications for proposed additional buildings.

Dayton, Tenn.—School Building.—City School Board Commission will open proposals August 12 for rector of school building; drawings and specifications by Bearden & Foreman of Knoxville, Tenn., and can be inspected at offices of Dayton Bank & Trust Co. in Dayton; T. J. Brewer, F. H. Abel and H. H. Taylor, commission.

Duncan, I. T.—Warehouse.—Farmers' Union Warehouse Co. has let contract to C. L. Peters for erection of warehouse; frame, with galvanized-iron cover.

Durham, N. C.—Residence.—W. W. Flowers has awarded contract to Salmon & Salmon for erection of residence; frame; 11 rooms; electric and gas lighting; steam heating; architects, Hook & Rogers, Charlotte, N. C.

Dustin, I. T.—School.—City has voted \$10,000 in bonds for erection of school building. Address The Mayor.

Edna, Texas—Bank Building.—Jackson County State Bank will erect bank building on site recently noted purchased, 25x50 feet; fireproof; cost \$3500; architect not selected. S. G. Drushel is cashier.

Elkins, W. Va.—Church.—Lutheran church, Rev. W. C. Ney, pastor, will build edifice.

Fort Smith, Ark.—Business Building.—O'Shea Bros. will erect business building 50x70 feet; three stories; brick construction; cost \$30,000; work begins at once.

Fort Smith, Ark.—Hotel.—Fort Smith Hotel Co. will open bids August 28 for erection of proposed hotel; entire work except heating and plumbing and mechanical appliances. Plans may be seen at office of architect, Herbert E. Hewitt, 22 Arcade Building, Peoria, Ill., and of Kelly Trust Co., Fort Smith. Blueprints and specifications furnished on deposit of \$25. Forms of proposal furnished by architect.

Fort Worth, Texas—Residence.—W. C. Stonestreet will build residence to cost \$25,000.

Fort Worth, Texas.—Freight House.—St. Louis Southwestern Railway Co. of Texas has not yet prepared plans for erection of freight house. Company has purchased property for additional facilities. (Mentioned August 1.)

Fort Worth, Texas—Freight Depot.—Missouri, Kansas & Texas Railway is understood to have decided upon the erection of freight depot to cost \$100,000; A. A. Allen, general manager, and J. J. Petheram, chief engineer; offices at Dallas, Texas.

Fredericksburg, Va.—Residence.—W. H. Peden will build residence.

Gadsden, Ala.—Business Building.—Ward & Howell are having plans prepared by A. D. Simpson for erection of two-story brick business building 25x125 feet.

Grafton, W. Va.—Hospital.—Drs. A. S. Warner and R. D. Macklin and others will build hospital; brick and stone; 50 to 60 rooms; to cost \$15,000.

Greensboro, Ga.—School.—City has voted \$15,000 in bonds for erection of school buildings. Address The Mayor.

Greenup, Ky.—Store Building.—J. D. Riggs awarded contract to Taylor & Robinson of Huntington, W. Va., for erection of store building; two stories high; 38x60 feet; of brick; after plans by J. B. Stewart of Huntington.

Hopefield, Ark.—Incline.—J. B. Berry, chief engineer Chicago, Rock Island & Pacific Railway, Chicago, Ill., states that incline recently noted to be built will be about 800 feet in length; cost \$20,000.

Houston, Texas—School Building.—City Secretary will open bids August 12 for additions and extensions to school building at Bingham and Colorado streets according to plans on file at City Engineer's office.

Houston, Texas—School Building.—City Secretary will open bids August 12 for erection of school building on McGowan avenue according to plans on file at City Engineer's office.

Jackson, Ky.—Hotel.—C. J. Little has not yet let contract for hotel recently mentioned; architect, W. J. Crone, Winchester, Ky.; building to be of brick; fireproof; steam heat; electric lighting; 52 rooms;

cost \$25,000; bids to be opened September 1.

Kansas City, Mo.—Warehouse.—Peet Bros. Manufacturing Co. will let contract about August 12 for erection of warehouse recently reported; building to be 100x110 feet; four stories and basement; brick and mill construction; steam elevators; cost of building \$40,000; machinery and other improvements \$60,000.

Keyser, W. Va.—Residence.—C. H. Potter has awarded contract to D. B. Biser for erection of double residence.

Keyser, W. Va.—Residence.—Benj. Souder has awarded contract to D. B. Biser for erection of nine-room residence.

Kings Mountain, N. C.—School Building.—City will expend a portion of \$50,000 bond issue for erection of school buildings. Address The Mayor.

Knoxville, Tenn.—Business Building.—Daniel Briscoe, Bro. & Co. are having plans prepared by Baumann Bros. for erection of \$30,000 addition to business building; 49x140 feet; mill construction; six stories high; sprinkler system for fire protection, etc.

Knoxville, Tenn.—Business Building.—Baumann Bros. are architects for building recently noted to be erected by Mrs. Geo. W. Baxter; building to be four stories; mill construction; 50x140 feet; steam heating; electric lighting.

Knoxville, Tenn.—Stables.—City has accepted plans and specifications by L. C. Waters for erection of proposed municipal stables; site 100x200 feet; details not stated. Address The Mayor.

Leadwood, Mo.—School Building.—City has voted \$25,000 of bonds for erection of school building. Address The Mayor. (Recently mentioned.)

Lexington, Ky.—School Buildings.—Board of Education contemplates calling an election to vote on issuing \$75,000 bonds for erection of school buildings; R. P. Shryock, president.

Lexington, Tenn.—Warehouse.—E. J. Timberlake is interested in plan to build cotton warehouse.

Littleton, N. C.—Church.—Baptist congregation, Mr. Bowers, pastor, contemplates building \$7000 church.

Lynchburg, Va.—Bank Building.—First National Bank has accepted plans by Lewis & Burnham for proposed bank building recently mentioned. P. Thornton Marye of Atlanta, Ga., is associate architect; building to be 37x132 feet; two stories; exterior of Georgia marble; interior of marble wainscoting; bronze rails; floor of marble; mezzanine floor; large vault; to cost \$70,000; fixtures to cost \$15,000 additional.

Lynchburg, Va.—Residence.—John W. and Ora N. Harvey will erect frame residence to cost \$6500; slate roof.

Martinsburg, Va.—Y. M. C. A. Building.—Y. M. C. A. Building Committee, L. H. Thompson, chairman, has engaged Harding & Upman of Washington, D. C., to prepare plans and specifications for proposed building to cost about \$20,000.

Memphis, Tenn.—Business Building.—M. E. Carter will erect business building, replacing \$20,000 structure recently burned.

Memphis, Tenn.—Apartment-house.—Horn Bros., owners, have prepared plans for and will construct fireproof flat building 42x145 feet; hot-water heating; combination lighting; cost \$40,000. (Recently mentioned.)

Middlesboro, Ky.—Residence.—J. D. Temple will build residence to cost \$10,000.

Middlesboro, Ky.—Greenhouse.—Andrew Bech will build greenhouse to cost \$5000.

Montgomery, Ala.—Church.—Highland Avenue Baptist Church, Rev. J. Henry Bush, pastor, has obtained building permit for proposed edifice; previously reported; two auditoriums; main one 35x45 feet; entire structure 70 feet square; seating capacity of both auditoriums 750; building to cost \$12,000.

Montgomery, W. Va.—Hotel.—Charles P. Dent will build three-story brick hotel of modern design.

Montgomery, Ala.—Warehouse.—Abraham Bros., Perry and Jefferson streets, will remodel warehouse.

Nashville, Tenn.—Fair Buildings.—County Court Committee has awarded contracts for erection of State Fair county building, to cost \$18,927; brickwork contract awarded to J. H. Hutchinson & Son at \$4998; carpenter work to Pete Walker at \$2550.

Nashville, Tenn.—Warehouse.—Greenfield-Talbot-Finney-Battle Company will build warehouse of wood and iron to front 250 feet and cost \$25,000.

New Brockton, Ala.—Warehouse.—Coffee County Union Warehouse & Storage Co. incorporated with capital stock of \$4000 by J. W. Kelsey, S. R. Morgan, G. M. Heath and others.

New Orleans, La.—Hotel.—Hotel Bruno will build addition to cost \$55,000; J. A. Mercier in charge of contract.

New Orleans, La.—Warehouse.—Crescent Warehouse Co. incorporated with capital stock of \$30,000. W. S. Douglass is president, Frank G. Hardie vice-president and Edward H. Overby secretary-treasurer.

New Orleans, La.—Office Building.—Southern Express Co. will erect office building.

Newport, Ark.—Warehouse.—Farmers' Union, G. L. Budoren, president, will build cotton warehouse.

Norfolk, Va.—Residences.—Larchmont Realty Corporation has let contract to Myers, Turpin & Co., Inc., for erection of residences. It is in contemplation to build from five to ten houses; cost, \$5000 to \$10,000 each; eight to ten rooms; steam, water and hot-air heating; electric and gas lighting; architects, Neff & Thompson.

Oklahoma City, O. T.—Business Building.—J. H. Gauthier of Chicago, Ill., reported as to erect four-story brick business building to cost \$20,000 at Oklahoma City.

Oklahoma City, O. T.—Office Building.—H. P. Harter and Henry M. Seales have accepted plans and specifications for seven-story steel-frame and concrete construction office building; fireproof; to cost \$100,000; architect, Wm. Stevens of D. H. Burnham & Co., Chicago, Ill.

Oklahoma City, O. T.—Dwelling.—A. V. Snell will build residence to cost \$7500; one story; frame construction.

Ozark, Ala.—Warehouse.—Farmers & Merchants' Warehouse Co. incorporated with capital stock of \$30,000 by B. P. Payner, H. G. Adkinson, J. B. Borland and others.

Paducah, Ky.—Auditorium.—The Auditorium Co. incorporated with capital stock of 15,000 by Hal S. Corbett and C. W. Thompson of Paducah and J. D. Purcell of Lexington, Ky.

Paducah, Ky.—Skating Rink.—Bids will be opened August 10 for construction of skating-rink building mentioned July 25; one story; frame; 80x225 feet; cost \$7500; owner, the Auditorium Company, Inc.; architect, O. D. Schmidt.

Pensacola, Fla.—Hotel.—F. C. Brent will enlarge the Manhattan Hotel, erecting a 76-foot addition, two stories high, containing 10 rooms each, with bath. Contract for erection awarded to C. H. Turner Construction Co.

Pensacola, Fla.—Warehouse.—Sam Rosenau Company has awarded contract to C. H. Turner Construction Co. for erection of 50x60-foot fireproof warehouse.

Perry, Ark.—Warehouse.—Perry Warehouse Association incorporated with capital stock of \$5000 and J. D. Rogers president.

Port Allen, La.—Church.—Brusly Catholic Church awarded contract to Gus Barlay of Plaquemine, La., at \$11,500 for erection of edifice; concrete and brick construction.

Portsmouth, Va.—Church.—Calvary Baptist Church will build \$15,000 edifice; about 75x80 feet; fireproof; electric lighting; architect, R. H. Hunt, Chattanooga, Tenn.; contract not yet let; pastor, W. R. Haight, 2115 Glasgow street.

Potosi, Mo.—Courthouse.—Washington county has awarded contract to W. R. Odor of Canton, Mo., at \$31,937 for erection of courthouse, after plans by H. H. Hohenschild of Rolla, Mo.

Prescott, Ark.—Warehouse.—Farmers' Union Warehouse Co., recently reported incorporated, will erect concrete or brick cotton warehouse; 134x150 feet; architect, J. M. Thomas, Emmet, Ark.; cost \$4500; contract not let; W. C. Jones, R. F. D. No. 2, president of union.

Princeton, Ky.—Warehouse.—John W. Hal-lowell, F. T. Satterfield, R. C. Sims and others will incorporate company with capital stock of \$10,000 to build tobacco warehouse.

Quannah, Texas—School Building.—School Board will open bids about August 12 for construction of school building; plans by Walter E. Taylor & Sons, Continental Bank Building, Fort Worth, Texas. Building will be supplied with steam heat and electrical equipment. (Other items given August 1.) President of School Board is D. E. Decker.

Raleigh, N. C.—Cotton Warehouses.—Wake County Cotton Association will organize cotton warehousing and holding company with capital stock of \$100,000 to build cotton warehouses of modern design and fireproof construction. Walter Grimes, secretary, can give information.

Richmond, Va.—Residences.—Rev. W. L. Taylor is reported to have received plans and specifications from J. A. Lankford & Bro. of Washington, D. C., for erection of three-story apartment building and 25-room residence to cost \$30,000.

Rowland, N. C.—School Building.—Board of Education will let contract about August 15 for school building recently mentioned; plans by McMillen & Cooper; brick; five rooms and auditorium; electric lighting; cost \$9000.

Sallsbury, N. C.—Fair Buildings.—Yadkin Valley Fair Association engaged Rose & Western of Greensboro, N. C., to prepare plans and specifications for erection of buildings, including two exhibit halls with 25,000 feet of floor space, grandstand 300 feet long to seat 2000, etc.

San Angelo, Texas.—College Building.—San Angelo College awarded contract to Griffon & Gafford at about \$45,000 for erection of building lately mentioned, including plumbing, heating and other mechanical equipments and fixtures.

San Antonio, Texas.—Warehouses.—Harry Landa of American Bank & Trust Co. is planning to build warehouse or several structures, initial expenditure to be probably \$65,000.

San Antonio, Texas.—Hotel.—San Antonio Hotel Co., L. J. Hart, president, is negotiating with Mauran, Russell & Gardner of St. Louis, Mo., for plans and specifications for erection of proposed hotel, and with Westlake Construction Co. of Chicago, Ill., relative to construction contract; hotel to be eight stories high; 130x164 feet; 340 rooms; all rooms outside; six floors for sleeping; numerous rooms with baths; brick and terra-cotta; steel-frame construction; building to cost \$650,000. Full details will probably be decided this month and promptly announced.

Sanford, Fla.—Hotel.—Sanford Hotel & Improvement Co. incorporated with capital stock of \$50,000; J. D. Beggs, president; M. M. Smith, vice-president, and H. P. Driver, general manager.

Savannah, Ga.—Office Building.—Georgia State Building & Loan Association will make alterations to building at cost of \$50,000; plans prepared by H. W. Whitcover; contractor, McKenzie-De Leon Construction Co.; building to have hot-air heating and combination lighting. (Mentioned recently.)

Sayre, O. T.—Church.—Methodist Episcopal Church, South, will erect \$6000 edifice; brick construction; 40x90 feet; architects, Geem Bros.; contract not let; E. P. Geem, chairman building committee.

Seguin, Texas.—Passenger Depot.—Galveston, Harrisburg & San Antonio Railway Co. will erect passenger depot to cost \$12,000; plans prepared by D. K. Colburn, bridge engineer; to be constructed by company's force; structure to be 20x125 feet; pressed brick; slate roof; ornamental-iron brackets; concrete foundations; brick fireplaces; electric and gas lighting; manager, W. G. Van Vleck. (Recently mentioned.)

Shreveport, La.—Residence.—J. B. Foster has let contract to Garson Bros. for erection of residence to cost \$7000.

Statesville, N. C.—Business Building.—L. B. Patterson has had plans prepared by Zimmer & Lester for three-story brick building; hot-air or steam heating; electric lighting; hand-power elevator; contract not yet let. (Recently mentioned.)

St. Charles, Mo.—Bank Building.—St. Charles Savings Bank will erect bank building.

St. George, S. C.—School.—Building Committee, O. B. Dukes, chairman, will open proposals September 3 for erection of school building after plans and specifications by C. Gadsden Sayre of Anderson, S. C. Plans may be obtained from architect or from chairman mentioned, or M. S. Connor, clerk to committee, St. George. Certified check for \$500 required from each bidder; building to be of brick, using one pipe direct-system heat with dry-air system of sewerage disposal.

St. Louis, Mo.—Business Building.—Walter W. Candy will erect business building to cost \$125,000.

St. Louis, Mo.—Alms-house.—Board of Public Improvements will build alms-house; 107 feet square; three stories; brick, stone and reinforced concrete; fireproofing; slate and composition roofing; iron and steel work; fireproof windows; to cost \$150,000; architects, Drischler & Eisner; offices in Wainwright Building.

St. Louis, Mo.—Church.—Centennial Methodist Church to build edifice; 55x110 feet; brick and stone; prism and art glass; fireproofing; iron and steel work; electric and gas lighting fixtures; steam-heating installation; rolling partitions; to cost \$24,000; H. J. Lynch, 625 Locust street, architect.

St. Louis, Mo.—Warehouse.—H. W. Powers has prepared plans for erection of warehouse; 50x140 feet; brick and stone; plate and prism glass; metal laths; fireproof windows; gas and electric lighting fixtures;

steam-heating installation; sanitary plumbing; to cost \$25,000.

St. Louis, Mo.—Apartment-house.—Frank J. Moore, Chouteau place, will build apartment-house.

St. Louis, Mo.—Apartment-houses.—The Trade Realty & Building Co. will build a row of apartment-houses.

St. Louis, Mo.—Club Building.—Knights of Columbus accepted plans and specifications by Baker & Knell for erection of club building 50x145 feet; fireproof; white enamel terra-cotta front; five stories; six stores on ground floor; 40x100-foot auditorium; to cost \$110,000.

St. Louis, Mo.—Residence.—A. E. Paul will build residence.

St. Louis, Mo.—Residence.—Dr. Charles E. Harbaugh will build residence.

St. Louis, Mo.—Store Building.—Cross Street Realty Co., care of Mercantile Trust Co., will erect store building to cost \$25,000.

Taylor, Texas.—Warehouse.—Taylor District Farmers' Union awarded contract to H. H. Jones of Houston, Texas, for erection of cotton warehouse.

Texarkana, Ark.—Office Building.—State Savings & Trust Co. awarded contract to Hugh McClellan of Chicago, Ill., for erection of proposed office building; five stories; 50x127 feet; stone, fire-clay and steel; fireproof; modern plumbing; elevators; cost \$150,000.

Toms Creek, Va.—School.—Henry K. McIlarg, 40 Wall street, New York, has awarded contract for erection of school building to be presented to Wise county; brick construction; steam-heating equipment; cost \$12,000; contractor, D. W. Wagner of Bristol, Va.-Tenn. (Lately mentioned.)

Uvalde, Texas.—School Building.—City has accepted plans and specifications by A. O. Watson of Austin, Texas, for erection of proposed school building previously mentioned; cost to be \$30,000. Address The Mayor.

Valdosta, Ga.—Warehouse.—W. L. Converse will erect warehouse 73x124 feet; brick construction; plans accepted; superintendent of construction, D. A. Lawson.

Valdosta, Ga.—Office Building.—B. F. and C. Strickland will erect office building.

Valdosta, Ga.—Residence.—Dr. E. P. Rose will build residence.

Valdosta, Ga.—Residence.—C. O. Marlin will build residence.

Valdosta, Ga.—Residence.—Sim Harrell of Lenox, Ga., will erect residence to cost \$25,000 at Valdosta; architect, M. E. Shaw.

Valdosta, Ga.—Store Buildings.—Robert Black will erect two store buildings.

Walnut Springs, Texas.—School Building.—School district has voted \$15,000 bonds for erection of school building. Address The Mayor.

Washington, D. C.—Dwellings.—Charles W. King has commenced building 10 two-story houses on Kenyon street, between 6th and 7th streets, after plans by N. T. Haller Company, architect, 212 Corcoran Building.

Washington, D. C.—Dwellings.—A. R. Townsend will erect 12 three-story brick and stone houses on Garfield street, between Woodley lane and Cathedral avenue, after plans by Hunter & Bell, architects, 1019 F street N. W.; cost about \$60,000.

Washington, D. C.—Dwellings.—Lafayette Leaman, builder, 1004 9th street N. W., is taking bids for the erection of 22 two-story-and-basement houses on Kenyon street, between 6th and 7th streets; N. T. Haller Company, architect, 212 Corcoran Building; cost about \$75,000.

Washington, D. C.—Officers' Quarters.—W. C. Langditt, Major, Engineers, U. S. Engineer School, will receive bids until September 3 for constructing two double sets of non-commissioned officers' quarters at Washington Barracks, District of Columbia.

Washington, D. C.—Sergeants' Quarters.—Major J. T. Crabbs, Quartermaster, Walter Reed Army General Hospital, Takoma station, will receive sealed proposals until August 23 for construction, including plumbing, gaspiping and electric lighting, double set of hospital corps sergeants' quarters. Plans and specifications on application; deposit of \$25 required.

Washington, N. C.—Hotel.—Cow Head Mineral Springs Co. incorporated with capital stock of \$100,000 to build hotel, etc., by W. C. Rodman, O. B. Wynne and J. L. Warren.

Washington, D. C.—Dwellings.—W. P. McGee, 250 15th street S. E., will erect four two-story dwellings at 258 to 264 15th street S. E., to cost about \$10,000; J. H. Lewis, 1623 Trinidad avenue N. E., architect and builder.

Weatherby, Miss.—Bank Building.—Farm-

ers and Merchants' Bank, W. E. Coleman, president, will erect bank building.

Wheeling, W. Va.—Market-house.—City proposes to expend \$65,000 for market-house. Address The Mayor.

Winston-Salem, N. C.—Hotel.—Phoenix Hotel Co. incorporated with capital stock of \$25,000 by A. F. Moses, R. C. Click and W. D. Huhn.

Woodstock, Va.—Academy Building.—Board of trustees Massanutten Academy has let contract to Wrenn Lumber Manufacturing Co., Edenburg, Va., for chapel and dormitory building described August 1; architects, Holmboe & Lafferty, Clarksburg, W. Va.; building to be 40x90 feet; steam heat; electric lighting; freight elevator; cost \$20,000.

Yazoo City, Miss.—Residence.—E. S. Williams has let contract to K. C. Thomson for erection of two-story cement-stone residence.

## RAILROAD CONSTRUCTION.

### Railways.

Aberdeen, Miss.—The bond issue for depot grounds, right of way and terminal facilities for the Memphis & Pensacola Railroad Co. was carried by a large majority.

Aiken, S. C.—A letter to the Manufacturers' Record says that promoters of the projected additional electric railway from Aiken to Augusta are endeavoring to make arrangements in New York for building the line.

Antoine, Ark.—The Gurdin & Fort Smith Northern Railroad (Missouri Pacific-Iron Mountain system) is reported to have laid track for about 40 miles northward from Antoine, and construction is being pushed. The work is heavy. About 40 miles more remain to be built.

Atlanta, Ga.—The bill introduced in the Legislature for the extension of the State's railroad (the Western & Atlantic) to the sea has been favorably reported, together with a bill for a bond issue to provide funds for construction.

Augusta, Ga.—An officer of the Charleston & Western Carolina Railway Co. writes the Manufacturers' Record denying a recent press report that the company would spend \$1,000,000 for improvements.

Austin, Texas.—Survey is reported begun by Thomas Moore for the proposed line of the Texas Interurban Company from Austin to Lockhart and other points.

Beckley, W. Va.—G. S. Beckwith, treasurer of the Glade & Guyandotte Railway Co., Cleveland, Ohio, is reported as saying that work will probably not be started on the proposed line from Glade to Mullens, W. Va., 30 miles, unless subscriptions are forthcoming along the line. A. D. Preston of Beckley, W. Va., is president.

Birmingham, Ala.—The St. Louis & San Francisco Railroad is reported to be spending \$125,000 for tracklaying on its new yards at North Birmingham and \$25,000 for team tracks near Avenue A on the South Side.

Birmingham, Ala.—The Alabama Terminal Co., which is the local organization of the Atlanta, Birmingham & Atlantic Railway, has increased its capital stock from \$2,000,000 to \$3,000,000 and will issue \$4,000,000 of bonds. It will build a line from Bones Gap to Adamsville in Jefferson county.

Caney, Ky.—The Caney, Piedmont & Moorehead Railroad Co., lately incorporated, has increased its capital to \$100,000.

Columbus, Ga.—A movement is under way at Crawford, Ala., to secure an extension of the Columbus Railway Co. 14 miles. It is also proposed by these promoters to ask for an extension beyond Crawford to Society Hill, 15 miles further. W. T. Rutledge, James Padgett, J. M. Slaughter and J. W. Mayberry of Crawford are the committee.

Dallas, Texas.—The Missouri, Kansas & Texas Railway proposes to considerably enlarge its present freight yards. J. W. Petheram is chief engineer at Dallas, Texas.

Dothan, Ala.—Mayor J. R. Young is quoted as saying that the Atlanta & St. Andrews Bay Railway has been completed from Dothan southward 65 miles to Compass Pond, within 20 miles of the Gulf of Mexico. A. B. Steele of Atlanta, Ga., president of the Enterprise Lumber Co., and others are interested.

Edgefield, S. C.—A mass-meeting has been held to promote a plan for an electric railway from Edgefield to Newberry, Abbeville, Greenwood, McCormick, Plum Branch and Parkville to Augusta, Ga. The Mayor of Edgefield may be able to give information.

Elkin, N. C.—H. G. Chatham is reported as confirming previous report that the Elkin & Allegheny Railroad Co. will eventually be extended from Elkin via Yadkinville to Winston-Salem, N. C., 60 miles. Preliminary

survey from Elkin to Sparta, N. C., is under way.

Englehard, N. C.—The Mattamuskeet Railroad Co. proposes to employ 100 State convicts to build the road, construction to begin about August 10. Location survey is being made. H. C. Carter is president and general manager, C. W. Davis secretary and treasurer. J. S. Mann is also interested. Line to run from Pamlico sound to Belhaven and thence toward Washington, N. C., a total of at least 43 miles.

Fairmont, W. Va.—The Fairmont & Man-nington Electric Railway is reported to have nearly completed all grading between Mannington and Farmington, with one mile finished between the latter point and Fairmont.

Fayetteville, N. C.—The Virginia & Carolina Railroad is reported to have completed and is operating from Lumberton to Bee Bee, and 75 convicts have been obtained, who, with the present force, will push construction on to Fayetteville. J. F. L. Armfield of Fayetteville is president.

Fort Worth, Texas.—The Missouri, Kansas & Texas Railway contemplates extensive work in Fort Worth in the way of yards and other terminal features. Between \$200,000 and \$300,000 will be expended. J. W. Petheram is chief engineer at Dallas, Texas. A later report says an agreement was reached with the City Commissioners and that \$50,000 will be spent.

Frederick, O. T.—Reported that W. L. Bockman of Chicago has made a proposition to the Chamber of Commerce of Frederick to build a railroad from Wellington, Texas, through Greer and Jackson counties to Frederick.

Glen Alum, W. Va.—T. P. Flanagan of the Glen Alum Coal Co. will, it is reported, build a five-mile extension of its railroad up Mate creek. Survey is being made.

Greenville, S. C.—H. H. Prince, president of the Greenville Interurban Railway Co., is reported, in a letter to the Manufacturers' Record, as saying that construction of the line to Williamston, 20 miles, will begin almost immediately via Piedmont and Pelzer. He is also reported as saying that Eastern capitalists have promised funds to build from Greenville to Spartanburg, about 30 miles. Press reports say that charter is granted to the Greenville Interurban Railway Co. to build the line to Williamston; H. H. Prince, president; A. A. Gates, vice-president; C. C. Good, secretary and treasurer. Other directors are W. F. Neal, Dr. George E. Coughlin, and O. K. Mauldin, attorney; capital \$100,000, which may be increased to \$1,000,000. Application will be made soon by the officers and the attorney to also charter the Greenville & Spartanburg Railroad Co., line to be 31 miles long.

Guthrie, O. T.—The Minneapolis, Kansas City & Gulf Railway Co., with headquarters at Minneapolis, Minn., is reported chartered to build a double-track electric railway from Minneapolis via Kansas City, Mo.; Guthrie and Oklahoma City, O. T.; Dallas, Waco and Houston, Texas, to Galveston, Texas. The Northwestern Securities Co. of Minneapolis is fiscal agent. C. B. Holme, formerly president of the Chicago City Railway, is chairman of the board.

Hartwell, Ga.—Charter has been granted for the proposed Georgia-Carolina Railway from Athens, Ga., to Anderson, S. C., via Hartwell and other points, 60 miles; capital \$1,000,000; headquarters at Hartwell. The incorporators include W. L. Hodges of Hartwell, A. H. Hodgson of Athens, J. R. Dorch of Carnesville, Ga., and others.

Helena, Ark.—Kaiser & Maloney are reported to be pushing work on the section of the Missouri & North Arkansas Railroad from Helena to Brinkley, Ark., 60 miles, and they have work to let. On the line from Leslie to Searcy, Ark., five miles of track are reported laid, this section being 93 miles long. Other work on the road is in progress from Helena northwest for 45 miles and from Woodruff to Neosho, Mo., 30½ miles. John Scott & Sons are the general contractors. W. S. Dawley, chief engineer of the Alleghany Improvement Co., St. Louis, Mo., is in charge.

Henrietta, Texas.—The Henrietta & Southwestern Railroad is reported to have completed survey to Graham, Texas, and will begin tracklaying immediately on the first 20 miles.

Houston, Texas.—The Houston Belt & Terminal Railway Co. has filed a mortgage to secure \$5,000,000 of 5 per cent. bonds to build its terminals. W. E. Green is president and C. M. Malone is secretary.

Jenks, I. T.—The Midland Valley Railroad is reported to have completed its branch from Jenks to Glen Pool, about six and one-fourth miles.



Lexington, Ky.—The Frankfort & Versailles Traction Co. has been consolidated with the Central Kentucky Traction Co., controlled by the Lexington & Interurban Railways Co. The Central Kentucky has also issued \$300,000 of bonds for construction of lines from Lexington to Winchester and Nicholasville. The company is also authorized to build to Frankfort, Shelbyville, Owen-ton, Paris, Cynthiana, Lancaster, Danville, Harrodsburg and Mt. Sterling, Ky.

Marianna, Ark.—Julius Lesser, one of the incorporators of the Marianna, Brinkley & Western Railroad, is reported as saying that construction will begin at Marianna on September 1.

McAlester, I. T.—Mr. E. Holbrook, chief engineer Missouri River & Gulf Railroad Co., 602-603 New Nelson Building, Kansas City, Mo., informs the Manufacturers' Record that matters in connection with the proposed line are still in the preliminary stages. A press report says survey has been started for the line and also for the Kansas City, Oklahoma & Houston road.

McAlester, I. T.—The McAlester Southwestern Railroad Co. will, it is reported, file incorporation papers at Guthrie, O. T., for a line from a point near Salisaw, I. T., on the Missouri Pacific-Iron Mountain system, to a point on the Red river in Comanche county, Oklahoma Territory, 250 miles; capital \$5,000,000; estimated cost of line \$4,500,000. Incorporators include A. S. McKenna, C. E. Dawley, Dr. E. N. Allen of McAlester and others; line from McAlester to Salisaw to be built immediately.

Middleton, Ala.—The Southern Railway, it is reported, has completed a spur four and one-half miles long from Littleton to coal mines in Jefferson county, also a spur three-quarters of a mile long to the mines of the Stith Coal Co. in Walker county.

Muskogee, I. T.—The Great Southwestern Railway Co., capital \$40,000,000, has been chartered at Guthrie, O. T., to build a line from St. Louis, Mo., to El Paso, Texas, via Salisaw and McAlester, I. T., and through Comanche county, Oklahoma Territory. The incorporators are H. P. and R. B. Moseley of Muskogee, I. T.; A. I. Gibbs and Peter Delchman of Wagoner, I. T.; John B. Yanger and L. C. Donica of Oklahoma City, O. T.

Nashville, Tenn.—R. E. Chambers of Cincinnati is reported to represent Eastern capitalists proposing to build an electric railway from Nashville to Louisville, Ky.

Natchez, Miss.—Concerning the recent press report that the Harriman lines contemplated building an extension from the west side of the Mississippi river into Natchez, Miss., Mr. J. Kruttschnitt, director of maintenance and operation of the Southern Pacific Co., writes the Manufacturers' Record that he knows nothing whatever of any such project, thus denying the rumor.

Natchez, Miss.—Judge Thomas Reber, who is interested in the proposed New Orleans, Natchez & Pacific Railroad, is quoted as saying that he has been conferring with bankers in Philadelphia concerning the financing of the project. A proposition has been made which will be submitted to the directors of the railroad. A. B. Wheeler of New Orleans is president.

New Iberia, La.—An election at St. Martinville has resulted in a vote of \$30,000 to aid the New Iberia, St. Martin & Northern Railroad.

New Orleans, La.—The Louisville & Nashville Railroad, it is reported, will begin work immediately on the new yard at Gentilly Station. W. H. Courtenay is chief engineer at Louisville, Ky.

Onalaska, Texas.—Tracklaying is reported under way on the Beaumont & Great Northern Railroad extension, 17 miles long, from Onalaska to a point three and one-half miles south of Livingston, Texas. It is proposed to continue the line (perhaps next year) 75 miles to Beaumont, Texas. S. J. Rogan is general manager at Onalaska.

Paducah, Ky.—L. B. Whitesides of New York, who is promoting the Kentucky and Ohio River Interurban Railway, is expected to have construction under way at an early date.

Pennington Gap, Va.—Callahan & Co. of Knoxville, Tenn., contractors on the Black Mountain Railroad, will, it is reported, complete it within a month.

Pine Bluff, Ark.—Mr. J. M. Rose, attorney, 314½ West Markham street, Little Rock, Ark., writes the Manufacturers' Record that the Little Rock & Pine Bluff Traction Co. was incorporated with \$1,000,000 capital; line from Little Rock to Pine Bluff, on the north side of the Arkansas river, with a branch to Stuttgart, Ark.; total length 70 miles; J. J. Fliske of Chicago, president and

general manager; W. H. Langford, Pine Bluff, vice-president; J. M. Rose, Little Rock, secretary and treasurer. Engineer not yet chosen, but survey will probably begin within 20 days.

Reader, Ark.—The Prescott, Reader & Fordyce Railway Co. has been incorporated to build its proposed line from Reader to Prescott, 24 miles, and thence to Fordyce, Ark., 50 miles further. The line is now in operation from Reader to Lyda, six and one-half miles, and is to be immediately extended 24 miles to Prescott, on which construction has begun. Capital \$500,000. The incorporators are W. B. Ferguson, president; S. C. Bossinger, vice-president; J. A. Defaut, secretary; George W. Rogers, treasurer; A. R. Powers, Henry Hazel and J. T. Murphy.

Richmond, Va.—At a stockholders' meeting of the Chesapeake & Ohio Railway Co. the proposed issue of \$10,000,000 of 5 per cent. five-year bonds was approved. The bonds have been sold to Blair & Co. of New York and the proceeds are to be devoted to improving the road and equipment.

Russellville, Ark.—The Russellville & Ozark Mountain Traction Light & Power Co. has been incorporated to build, acquire and operate interurban electric railways between Russellville and other towns; capital \$250,000. The incorporators are Adam J. Robinson, president; J. C. Wilson, vice-president; James Gould, secretary; W. H. Langford, treasurer; I. Reinberger, Ben Robinson and others.

Sour Lake, Texas.—L. F. Daniel is reported to be making a survey for a 10-mile extension of the tramroad of the Thompson-Ford Lumber Co.

Stamford, Texas.—The Stamford & Northwestern Railway is reported to have completed permanent survey from Dickens, Texas, to the county line, about 20 miles.

Stephenville, Texas.—The Stephenville North & South Texas Railway has finished 13 miles of line from Stephenville to Alexander, and of the total length, 43 miles, from Stephenville to Hamilton, 90 per cent. is completed, to be operated by October 1. Application has been made to issue bonds. J. P. Giller is vice-president and general manager. Cage & Crow, bankers, of Stephenville are interested.

Sugarland, Texas.—The Imperial Valley Railroad Co., it is reported, will push construction on its proposed line from Sartartia, near Sugarland, to Hempstead, Texas, 60 miles. Rails are on hand for 10 miles. W. T. Eldridge of San Antonio, R. Lee Kempner of Galveston and others are interested.

Sulphur Springs, Texas.—A business men's meeting has appointed a committee to work on the proposition to build a railroad from Sulphur Springs to Mineola, Texas. The committee is as follows: Mayor R. B. Kensler, R. M. Henderson, John T. Hargrove, B. F. Ashcroft and W. A. Smith.

Summerville, S. C.—Gen. A. J. Warner, president of the Charleston & Summerville Electric Railway Co., is reported as saying that financial arrangements have been made and construction will soon be resumed.

Tateville, Ky.—Rapid construction is reported on the Cumberland River & Nashville Railroad between Tateville and Monticello, Ky. About 10 miles have been graded, and this section of the line will be completed by January.

Velasco, Texas.—The Houston & Brazos Valley Railroad, formerly the Velasco, Brazos & Northern, has, it is reported, passed under control of B. F. Yoakum and associates. As heretofore reported, it is proposed to build an extension from Anchor to Houston, about 50 miles. Felix Jackson is general manager at Velasco.

Washington, N. C.—Stockholders of the proposed railway from Washington to Williamston, N. C., 25 miles, are to meet shortly for organization. W. E. Jones, J. B. Trenholm and others are reported interested.

Washington, D. C.—A report from Frederick, Md., says that the proposed extension of the Great Falls & Old Dominion Railway will be to a connection at Frederick with the Washington, Frederick & Gettysburg Railway. Extension will be 29 miles long. Senator S. H. Elkins of Elkins, W. Va., is interested in the Great Falls road and D. Columbus Kemp of Frederick, Md., is president of the other.

West Point, Ga.—The contractors for the extension of the Chattahoochee Valley Railway are B. H. Hardaway of Columbus, Ga., and J. W. Wright, Jr., of Union Springs, Ala. They are to build 16 miles of line.

Wilmington, N. C.—F. S. Pusey and A. J. Fahnestock of Philadelphia, incorporators of the Cape Fear, Southport & Atlantic Railroad, are reported to have begun survey at Southport, N. C.

Woodward, O. T.—The Canadian River Railway is reported to be pushing construction on its line from Woodward to Oklahoma City, De Vere & Sons having the contract. W. P. Halliday is chief engineer at Woodward, O. T.

#### Street Railways.

Charlotte, N. C.—The Charlotte Consolidated Construction Co. has, it is reported, reached an agreement with the city to have its extension of the Charlotte Electric Railway built to the Catawba river.

Denton, Texas.—Tracklaying has begun on the Denton street railway.

El Reno, O. T.—Mr. J. W. Maney of Maney Bros. & Co., contractors, writes the Manufacturers' Record that the El Reno Railway Co. will build two miles of street railway in El Reno, work to begin September 1 and to be in operation on January 1 next. Interurban lines will be built some time next year. John Maney and Henry Schafer are also interested in the railway.

Graham, W. Va.—Mr. C. W. Keister of the Graham Hardware Co. informs the Manufacturers' Record that a two-mile extension of street-car line is needed by the town of Graham, and also an electric plant. It is desired to interest outsiders.

Kansas City, Mo.—Alexander Massey, J. S. Chick and W. E. Winner are reported planning to build an electric railway from Kansas City along the valley of the Big Blue river to the mouth of Brush creek. It will connect with the Metropolitan Street Railway.

Memphis, Tenn.—The South Memphis Traction Co. has applied for a charter to build three lines, two of which will connect Memphis with South Memphis, and the other will be a cross-line. The incorporators are K. D. McKellar, James F. Hunter, W. E. Gage, W. G. Thomas and C. W. Edmonds.

Mobile, Ala.—The Mobile Light & Railway Co., it is reported, proposes to build an extension to Pine Crest and Dog River.

Quitman, Ga.—Reported that the "street railway company promoted by O. K. Jelks and others is about to organize preparatory to beginning work. Another report says that charter has been granted for the Quitman & Blue Springs Street Railway Co.

Shreveport, La.—S. A. Guy is reported as saying that the proposed street railway will be built. One survey has been completed and another will shortly be finished.

Winston-Salem, N. C.—Construction is reported begun on the extension of the street railway to East Winston.

### MACHINERY, PROPOSALS AND SUPPLIES WANTED.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.**

**Ball-bearing Journals.**—E. O. Painter Fertilizer Co., Jacksonville, Fla., wants to correspond with manufacturers of ball-bearing journals or boxes.

**Bank Fixtures.**—Greenville Banking & Trust Co., Greenville, N. C., in market for bank fixtures.

**Bending Rolls.**—See "Foundry Equipment."

**Boilers.**—Big Sandy Lumber Co., Hull, Ala., wants prices on two 100-horse-power boilers.

**Bridge Construction.**—Bridge Committee of Iberville Parish will open bids September 9 for substructure, superstructure and approaches of steel drawbridge across Bayou Plaquemine. Plans and specifications may be had on deposit of \$15; returned on return of plans. For information apply to Jules A. Hebert, Clerk of Police Jury, Plaquemine, La.

**Bridge Construction.**—J. P. Goodwin, supervisor Greenville county, and S. O. Jackson, supervisor Anderson county, Greenville, S. C., will open bids August 20 for construction of two bridges across Saluda river. Plans and specifications made known on day of letting.

**Coal.**—P. F. Bergasse, 299 Rue Paradis, Marseilles, France, wants addresses of miners and exporters of coal.

**Collar-pad Machinery.**—Harriss Manufac-

turing Co., Rock Hill, S. C., wants collar-pad machinery and supplies for manufacturing pads.

**Concrete Footway.**—Board of Awards, care City Register, City Hall, Baltimore, Md., will receive bids until August 14 for construction of concrete footway along west side of Patuxent street, between Baltimore street and Eastern avenue; certified check required with bids and usual rights reserved.

**Concrete Mixer.**—Abee & Edwards, Hickory, N. C., want concrete mixer.

**Concrete products Machinery.**—E. L. Darling, Blackshear, Ga., wants to correspond with manufacturers of machinery for making concrete products, including sewer pipe and brick.

**Condenser and Pump.**—Mineral Wells Electric System, Edw. Burke, chief engineer, Box 833, Mineral Wells, Texas, wants surface condenser, 3000 square feet cooling surface, complete with rotative dry-vacuum and centrifugal circulating pump; pump capacity sufficient to maintain 28 inches vacuum seven degrees circulating water; immediate delivery.

**Construction Work.**—Kaiser & Maloney, Helena, Ark., are prepared to award contracts for 500,000 cubic yards of railroad work, mostly in fields, on Missouri & North Arkansas Railroad; suitable for graders, wheelers or slips, and for any else outfit.

**Cotton gin Machinery.**—Lawrence County Warehouse Co., care of J. W. Hindman, Clover Bend, Ark., wants cottonseed lifters.

**Cotton Oil.**—P. F. Bergasse, 299 Rue Paradis, Marseilles, France, wants addresses of manufacturers of cotton oil.

**Crane.**—Bartlesville Foundry and Machine Works, Bartlesville, O. T., wants 40-foot traveling crane.

**Creamery Machinery.**—Fort Worth Creamery Co., 1101 Main street, North Fort Worth, Texas, will buy sterilizing and condensing machinery.

**Crushing Machinery.**—Thorn & Carter, Princeton, W. Va., want catalogues and prices of sand-crushing machinery.

**Crushing Machinery.**—S. R. Ramsay, care of West Side Hotel, Fort Worth, Texas, wants to correspond with manufacturers of machinery for working asphalt rock.

**Cupolas.**—See "Foundry Equipment."

**Dredging.**—U. S. Engineer Office, Charleston, S. C. Sealed proposals for dredging canal between Sewee bay and McClellanville, S. C., will be received until August 20. Information furnished on application; E. R. Stuart, Captain, Engineers.

**Drilling Machinery.**—Seminole Water-Works Co., H. C. Whitfield, manager, is in market for artesian-well drill and supplies.

**Electrical Machinery.**—See "Sanitary Fixtures, etc.," being a call for proposals by the Isthmian Canal Commission.

**Elevator.**—Bartlesville Foundry and Machine Works, Bartlesville, O. T., wants two-ton hand elevator.

**Elevator.**—High Island Hydraulic Stone Works, C. T. Cade, secretary, High Island, Texas, will buy elevator.

**Engine.**—C. T. Cade, secretary High Island Hydraulic Stone Works, High Island, Texas, will buy gasoline engine, 8, 10 or 15 horsepower.

**Engine.**—See "Sanitary Fixtures, etc.," being a call for proposals by the Isthmian Canal Commission.

**Foundry Equipment.**—Bartlesville Foundry and Machine Works, Bartlesville, O. T., wants 500 and 1500 or 2000-pound steam hammers, 54-inch-diameter shell Whiting copola, eight-foot boring mill; boiler-plate bending rolls, 10 or 12 feet between housings; 40-foot travelling crane, 12-inch pipe-threading power machine down to 2½-inch pipe, small pipe and bolt threading machine, 32-inch shaper, hacksaw, bulldozer for mining-car work; power punch, 20-inch throat, to punch two-inch hole through three-quarter-inch plate; power shears for cutting steel plate, two-ton hand elevator, etc.; second-hand.

**Foundry Equipment.**—Wilmington Iron Works, 10 South 2d street, Wilmington, N. C., is in the market for equipment for small steel foundry.

**Furniture.**—See "Metallic Furniture."

**Graphite.**—Ernest L. Hill, Columbus, Ga., wants prices and samples of amorphous graphite.

**Handkerchief Machinery.**—Giles & Sykes, First National Bank Building, Durham, N. C., want information regarding manufacture of handkerchiefs, cost of machinery required and other particulars.

**Ice Machinery.**—Rochell & Parsons, Mt. Pleasant, Tenn., want ice machinery for 15-ton plant.

**Ice Machinery.**—Ice Plant, care of Manu-

facturers' Record, wants to correspond with manufacturers of ice machinery.

**Ice Machinery.**—C. B. Wier, Quitman, Miss., wants to correspond with manufacturers of ice machinery.

**Ice Plant.**—Reveley Bros., 3018 Fifth street, Lynchburg, Va., are in the market for 10-ton ice plant.

**Iron and Steel Products.**—Adrian Benoit, 538 Cortes street, Barcelona, Spain, wants to represent American manufacturers of tinned and galvanized-iron wire, bolts, sheet steel for building purposes and hardware.

**Iron Lathe.**—Wm. P. Jacobs, Thornwell Orphanage, Clinton, S. C., wants second-hand iron lathe.

**Kettles.**—Chas. A. Tappan, 18 North Hudson street, Oklahoma City, O. T., wants catalogues and prices on kalsomining kettles for gypsum plaster.

**Lard Machinery.**—See "Packing-plant Machinery."

**Lighting Fixtures.**—See "Metallic Furniture."

**Lock and Dam.**—United States Engineer Office, Vicksburg, Miss. Sealed proposals for building lock and dam No. 8 in Ouachita river at Franklin Shoals, Ark., will be received until October 5. Information furnished on application; G. M. Hoffman, Captain, Engineers.

**Lock and Dam Construction.**—Proposals will be opened October 5 for building locks and dams Nos. 2 and 3 and lock-tender's house, Tombigbee River, Ala. Information furnished on application to H. Jervey, major engineers, United States Engineer Office, Mobile, Ala.

**Locust Insulator Pins.**—F. P. Catchings, 144-146 Edgewood avenue, Atlanta, Ga., wants information in regard to demand for locust pins, cost of manufacture, localities where locust timber is abundant, etc.

**Machine Tools.**—See "Sanitary Fixtures, etc.," being a call for proposals by the Isthmian Canal Commission.

**Machinery.**—Charles Henry Boller & Tank Works, Madison, Ind., wants catalogues and prices of new and second-hand machinery.

**Machine Tools.**—American Manufacturing Co., Atlanta, Ga., is in market for new or second-hand 20-inch swing long lathe, 20 to 24-inch shaper and 20-inch drill press; immediate delivery.

**Machine Tools.**—E. W. Cole, care of Cole Manufacturing Co., Charlotte, N. C., wants drill press, machine lathe, punch and shear and shaper.

**Metallic Furniture.**—Randolph County Court, Lee Crouch, Clerk, Elkins, W. Va., will hold session on August 26 to consider proposals for metallic furniture for vaults; also for wood furniture, electric and gas fixtures, frescoing and relief work for courthouse now being erected.

**Metal-working Machinery.**—See "Foundry Equipment."

**Mixer.**—Carolina Ice & Packing Co., Darlington, S. C., is in the market for new or second-hand fertilizer mixer.

**Nut Manufacturers.**—Kansas City Lock Nut Co., 818 Scarritt Building, Kansas City, Mo., wants quotations to drop-forged nuts.

**Oil-mill Machinery.**—William H. Knox, 116 Broad street, New York, wants catalogues and best export prices on machinery, both hand and power, for hauling and pressing oil seeds, especially castor oil seeds; also wants addresses of manufacturers of machinery for making oil meals and cakes.

**Packing-plant Machinery.**—Wm. H. Knox, 116 Broad street, New York, wants addresses of makers of machinery for manufacturing and pressing lard, stuffing sausages, etc.

**Patternmakers.**—E. W. Cole, care of Cole Manufacturing Co., Charlotte, N. C., wants catalogues of pattern-shop equipment or to buy patternmaker's complete outfit, second-hand tools.

**Paving.**—Board of Awards, care City Register, City Hall, Baltimore, Md., will receive bids until August 14 to grade, curb, gutter and pave with sheet asphalt, asphalt blocks, vitrified brick or bitulithic Wilkens avenue from Wilkens street to southern city limits, and to grade, curb, gutter and pave with macadam 7th street from North avenue to Northwest street.

**Pier.**—Board of Awards, care City Register, City Hall, Baltimore, Md., will receive bids until August 14 for the construction of a pier and timber pier at Fort McHenry and work in connection therewith; certified check required with bid and usual rights reserved.

**Potato-chip Machinery.**—A. S. Cohen, 117 Waldburg street, Savannah, Ga., wants information in regard to machinery and method for making potato chips.

**Pulley.**—J. M. Case Mill Manufacturing Co., Louisville, Ky., wants ball-bearing pulley or substitute.

**Pumping Equipment.**—See "Condenser and Pump."

**Punching and Threading Machines.**—See "Foundry Equipment."

**Road Construction.**—Campbell County Road Commissioners, R. B. Baird, Henry Miller and Wm. M. Keeney, Jacksboro, Tenn., will open proposals September 3 for road construction, of which plans and specifications can be seen at their offices.

**Road Improvements.**—Proposals will be invited for excavation and six-inch macadam for county road; 10 or 12 miles. Address Gilbert C. White, engineer in charge, Durham, N. C.

**Road Work.**—Quartermaster's Office, United States Army, New Orleans, La. Sealed proposals, in triplicate, for constructing roads, drains and sidewalks at Fort St. Philip, La., will be received until August 21. Information furnished on application; B. T. Clayton, Captain, Quartermaster.

**Sanitary Fixtures, etc.**—Isthmian Canal Commission, Washington, D. C., will open bids on August 22 for furnishing sanitary fixtures, soil pipe and fittings, water tanks and standpipes, double-compound engine and dynamo, shop machines, locomotive springs, saws, hammers, vises, tools, etc. Blanks and information pertaining to Circular No. 382 may be obtained at office of commission or offices of Assistant Purchasing Agent, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco; 410 Chamber of Commerce, Tacoma, Wash.; Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta, Ga.

**Sausage Machinery.**—See "Packing-plant Machinery."

**Saws.**—Bartlesville Foundry & Machine Works, Bartlesville, O. T., wants power hacksaw.

**Sewage Ejectors.**—City Secretary, Houston, Texas, will open bids August 19 for complete installation of three sewage ejectors according to plans and specifications on file at City Engineer's office, City Hall.

**Sewer Work.**—City of Webster Groves, Mo., will open proposals August 19 for sewer construction as follows: 50,500 feet of 9 to 18-inch pipe sewer, 54 flush tanks, septic sewage-disposal tank of 70,000 gallons capacity daily; also for 42,800 feet of 9 to 10-inch pipe sewer, 49 flush tanks, septic sewage-disposal plant of 12,000 gallons capacity daily. Specifications and forms of contract may be obtained at office of R. E. McMath Surveying Co., 328 Lincoln Trust Building, St. Louis, Mo., or from City Clerk, L. B. Ripley, Webster Groves. Maps and profiles and further information at office of Robert E. McMath, Sewer Commissioner, 512 Bompert avenue, Webster Groves.

**Steam Hammers.**—See "Foundry Equipment."

**Tank.**—See "Kettles."

**Telephone Equipment.**—W. W. Moreland, Little Capon & Spring Gap Telephone Co., Spring Gap, W. Va., wants prices on telephone boxes, fixtures, brackets, insulators, etc.

**Textile Machinery.**—See "Handkerchief Machinery."

**Waterproofing Liquids.**—Wanted.—Liquids to render waterproof these products: Plaster boards and partition blocks made of stucco, wood fiber and paper pulp; want light-colored waterproofing, without oil preferred, and as non-inflammable as possible. Address 1022 Holland Building, St. Louis, Mo.

**Water-works.**—City of Lewisburg, Tenn., will open proposals August 20 for furnishing materials and constructing water-works, standpipe, cast-iron water pipe, specials, pig lead, hydrants, valves, vitrified tiling, etc., except caking of joints in line of pipe, in accordance with plans and specifications, which may be seen at office of the engineer in charge, Cadogan Morgan, 808 Royal Insurance Building, Chicago, Ill., and of L. J. Nance, chairman water-works committee, Lewisburg; bids to be for any or all of the construction and supplies.

**Water-works Equipment.**—See "Drilling Machinery."

**Weaving Machinery.**—See "Handkerchief Machinery."

**Well Drilling.**—Board of Aldermen, Newton, Miss., will open proposals August 6 for drilling wells 300 feet deep. For specifications apply to Xavier A. Kramer, consulting engineer, Magnolia, Miss.

**Woodworking Machinery.**—J. W. Ogburn Lumber Co., Marshall, Texas, wants trimmer.

**Woodworking Machinery.**—E. P. Catchings, 144-146 Edgewood avenue, Atlanta, Ga., wants to correspond with manufacturers of lathes for locust insulator pins.

**Woodworking Machinery.**—E. W. Cole, care of Cole Manufacturing Co., Charlotte, N. C., wants heavy bandsaw or band resaw, hand planer and boring machine.

## INDUSTRIAL NEWS OF INTEREST

### Installing Tanks, Pumps, Etc.

Messrs. F. A. Clegg & Co., 237 3d street, Louisville, Ky., have been awarded a contract by the Louisville Cotton Oil Co. for the installation of steam pumps, refining tanks, piping, etc.

### Sale of Lighting Plant.

A recent sale of the Orleans Engineering Co., 830 Canal street, New Orleans, La., is a lighting plant to the Albert Hanson Lumber Co. of Garden City La. The plant will be for direct current, having a capacity of 75 kilowatts.

### Opens New Building.

The new building of the Home Insurance Co. of New York, which has been erected at the corner of South and Water streets, Baltimore, Md., was formally opened on July 31. Mr. A. G. Hancock is the State agent of the company.

### Foundry for Sale.

An opportunity for purchasing a foundry for light work, which may be changed to do heavy work at a small cost, is presented by "Foundry," care Manufacturers' Record. The plant is advantageously located and has excellent shipping facilities.

### Wants Additional Capital.

Parties willing to invest about \$25,000, with or without services, in a manufacturing plant which desires additional working capital may have an interesting proposition made them by addressing "E," care Manufacturers' Record Publishing Co.

### Western Corporation Wants Agencies.

General Western agencies for staple lines of products are wanted by the Smart-Burnham & Evans Investment Co., offices in the Scarritt Building, Kansas City, Mo. This is a corporation which states it has excellent facilities for giving proper attention to representing manufacturers and others.

### Moves Into New Offices.

The Holmboe Company of Louisville, Ky., has moved into more commodious offices in the Lincoln Savings Bank Building. This company does an extensive reinforced concrete construction business, and is at present completing a contract for abutments and bridge for the Louisville Railway Co. on its Bardstown extension.

### Southern Pipe Covering Co.

The Southern Pipe Covering Co. of Richmond, Va., has reorganized, with John A. Selph, president; A. L. Mull, vice-president; C. M. Selph, secretary and treasurer, and C. F. Paul, manager. The company does a contracting pipe-covering business throughout the South and keeps in stock supplies of asbestos coverings, asbestos cements, packings, roofing, hair felt and fibers.

### Paper Milk Bottle.

The manufacture of a single-service paper milk bottle is projected by the Union Paper Cup Co., William J. Brokaw of Trenton, N. J., president, which has organized with a capital stock of \$500,000. The company has secured the sole right to manufacture this bottle in the United States, and is completing a plant near Trenton, where it expects to manufacture 200,000 per day.

### Favors Ajax Metal Co.

A decision favorable to the Ajax Metal Co. of the South, Philadelphia, Pa., and Birmingham, Ala., has recently been rendered in the Circuit Court of the United States, District of New Jersey, relative to an infringement of the company's patent covering the manufacture of its plastic bronze. The decision is regarded as sustaining the claims of the Ajax Metal Co. and its priority in manufacturing and selling Ajax plastic bronze.

### To Obtain Equitable Freight Rates.

Equitable freight rates are important factors in the progress of any business community. Cities and communities which produce marketable goods must be enabled to ship to the markets at fair and reasonable rates, otherwise they will not progress as their advantages may warrant. Organized and experienced effort to obtain equitable freight rates from railroads and other common carriers is offered cities whose merchants and manufacturers are hindered by unfair rates. Information regarding the

plan can be obtained by addressing "Traffic," care of the Manufacturers' Record.

### Pittman-Hayes Company.

Mr. F. A. Pittman, who has been building inspector of Atlanta, Ga., for the past 12 years, has associated with Charles A. Hayes of the same city in organizing the Pittman-Hayes Company, architects and superintendents. Mr. Hayes has been an architect in Atlanta for six years and has designed a number of public and private buildings in that city and the South. The Pittman-Hayes Company will have its offices at 409 Prudential Building, Atlanta.

### Brickmaking Installations.

Recent Southern installations of the Chambers Bros. Co., 52d street, below Lancaster avenue, Philadelphia, Pa., include a large heavy end-cut machine for the Hankinson Brick Co. at Augusta, Ga., which is reported as being very satisfactory in its operation. This company has also received orders from the Crucial Fire Brick Co. of Rome, Ga., for a complete brickmaking plant, including drier equipment. Another user of the Chambers Bros. equipment is the Sibley-Menge Press Brick Co. of Birmingham, Ala., which manufactures a fine face brick exclusively.

### Bitulithic Paving Strength.

The bitulithic paving on Atlantic avenue, Atlantic City, N. J., was recently subjected to a severe test by a 92 ton engine of the Pennsylvania Railroad Co. The engine left the tracks, going into Atlantic avenue, and ran for a space of 29 feet over the pavement, leaving only two small indentations, one of which was found to be one-fourth of an inch and the other one-sixteenth of an inch. At the point where the engine struck the pavement it had only been laid two weeks, the work having been done by the Standard Bitulithic Co.

### Structural Iron and Steel.

As indicating the progress of building conditions, the demand for iron and steel for general construction purposes is constantly increasing. Among those who handle material of this character and whose orders have steadily increased may be mentioned Thatcher A. Parker, 202 North 1st street, Terre Haute, Ind. In the first three weeks of July more orders reached the office of Mr. Parker than in any three months' period since his business was organized 12 years ago. He has in stock roofs, columns, girders, trusses, channels, beams, angles, etc.

### Economy in Fuel Burning.

An important problem as bearing on the profit of operating industrial plants is often presented in the question of fuel economy. A system which is claimed to be based on scientific principles and which is intended for use in every fuel-burning plant in connection with steam boilers, is that of the Chapman fuel economizing system. Installations of which are being made by the Ungaynon Engineering Co., 3 Park Row, New York city. This company is the exclusive representative in Greater New York and vicinity of the Albany (N. Y.) Industrial Co., owner of the system referred to, and has also taken charge of all territory to the Gulf of Mexico. It is at present making estimates for a number of plants in Southern States.

### Establishing Modern Machine Shop.

Active preparations have begun for the establishment of the proposed machine shop of the C. P. Young Engineering & Supply Co., whose offices are at 601 to 613 Baronne street, New Orleans, La. This company was incorporated several months ago with a capital stock of \$100,000 for mechanical and electrical engineering and for furnishing machinery and mill supplies. It has leased a floor space 100x100 feet, and is at present installing improved equipment for its purposes, expecting to have the plant ready for operation within 30 days. Officers of the company include Messrs. C. P. Young, president and treasurer; George S. Dodds, vice-president, and L. A. Murphy, secretary and superintendent. The new enterprise has been previously referred to by the Manufacturers' Record.

### The Harry I. Wood Company.

One of the aggressive enterprises of Louisville, Ky., is the Harry I. Wood Company, Inc., 518-520 West Main street. This company maintains a jobbing department, in which it carries in stock high-grade electrical and



kindred machinery, including Columbia and Peerless incandescent lamps, and Allis-Chalmers generators, motors, transformers, etc. It also sells the Wagner single-phase motor, the Jandus fan and other products, besides representing the Ball Engine Co. of Erie, Pa. In connection with its jobbing department the Wood Company maintains a construction department, which has grown to such an extent that it has been decided to organize a separate company for handling this work. This will be known as the Wood Construction Co., and will be organized within a month or two.

#### Wickes Brothers' Machinery List.

The monthly stock list for August of Wickes Bros., machinery manufacturers and dealers, Cedar and West streets, New York city, is now being distributed. The list includes specifications of a comprehensive assortment of boilers, engines, dynamos, motors and machinery.

#### Prosperous Year for Slate Companies.

At a recent meeting of the directors of the Vermont Slate Co., whose quarries and general offices are at Granville, N. Y., with branch offices at Zanesville, Ohio, and London, England, the usual semiannual dividend of 4 per cent. was declared. This company is affiliated with the Valley Slate Co., whose directors elected the following officers: President, H. A. Sharpe of Zanesville, Ohio; vice-president, H. F. Rohman; treasurer and general manager, Hugh G. Williams of Granville, N. Y.; secretary, Ellis Williams of Granville, N. Y. The Valley Slate Co. owns the Lloyd unloading green quarries near Fair Haven, Vt., where for a month past it has been installing new machinery for working the quarries on a more extensive scale. It is at present planning the erection of a modern mill for the purpose of working up mill-stock trade, such as electrical switchboards, structural slates, etc.

#### Detroit Graphite Manufacturing Co.

The Detroit Graphite Co. is the new corporate title of the Detroit Graphite Manufacturing Co. of Detroit, Mich. Mr. F. W. Davis, Jr., has been elected vice-president and T. R. Wyles second vice-president. Mr. A. A. Boutell is president. With the very extensive additions and improvements that have been made to its building and machinery departments, the company is prepared to give even prompter attention than heretofore to all orders. The great increase and demand for its light-color paints has necessitated the reservation of one building especially for this department. The company's factories are located at Detroit, and its mines are at L'Anse, Mich. It maintains offices in New York, Boston, Chicago, Buffalo, Cleveland, St. Louis, Atlanta and Kansas City. In a little over 15 years now this company has been obliged to increase its capital stock four times. Commencing in 1892 with a capital stock of \$100,000, it was increased in 1896 to \$250,000, in 1902 to \$1,000,000, and in June of this year to \$250,000. The frequent increase in capitalization has been necessitated by the rapid increase in its business, which now reaches to all parts of this country, with frequent shipments abroad.

#### Cotton Mill Engine Installation.

An interesting feature of the equipment of the Pioneer Cotton Mills at Guthrie, O. T., is the engine installation. The engine is of the Allis-Chalmers usual design and construction for Reynolds Corliss machines. Its steam cylinder is 16 inches diameter by 42 inches stroke, fitted with latest-improved Reynolds Corliss valve gear, double-ported valves; all parts of valve gear made as light as possible consistent with strength, and movement of parts diminished to the minimum. The engine operates normally at 78 R. P. M. with 150 pounds gauge initial steam pressure, and its economical rating under these conditions, running non-condensing, is about 250 indicated horse-power. The power generated is transmitted through the fly-wheel, which is 16 feet in diameter and grooved for 10 ropes one and three-quarters inches diameter; the wheel is heavier than usual in order to secure the necessary balancing effect required for cotton-mill operation. The engine shaft is extended beyond the outboard bearing, and this projection is turned and keyed to receive the crank of the low-pressure side, to be added in the future, thus making the now simple engine a cross-compound unit. This addition may be made at any time when the requirements of the mill make it necessary to generate more power. The initial installation of the power plants in a great many of the cotton mills throughout the southern parts of the country include a simple type of engine arranged similarly to this one, so that the low-pressure side may be added at any time additional power is required. In this in-

stance the valve gear is of the double-eccentric type, with the two steam valves and the two exhaust valves, each operated by a separate eccentric. It is expected that the engine will operate condensing, and the additional eccentric is to give the extra compression required before the low-pressure side is added. The Allis-Chalmers Company of Milwaukee, Wis., builds the engine noted.

#### ACTIVITY AT CHARLESTON.

##### Pushing Improvements in West Virginia's Capital.

[Special Cor. Manufacturers' Record.]  
Charleston, W. Va., August 5.

Midsummer finds Charleston in the midst of an industrial development unprecedented in its history. The unequalled sale of real estate that characterized the early spring has been followed by the carrying out of plans for improvement then mapped out in the minds of purchasers, and the activity displayed is of a degree new even to this hustling and progressive place.

In the city proper the great sewer system planned months ago, and to pay for which bonds were voted during the winter, is now well under way, and before long the old portion of the town will be well supplied with outlets for the offal whose presence is deleterious to health, while plans for a still further extension of street paving and sewer laying have already been matured, and the taxpayers are called upon to vote still more bonds for the money necessary. This election will take place shortly, and if past performances tell anything of future results the majority will be on the side of the bonds and progress. Unfortunately, the proposed election for bonds to build roads through the county has been called off by the County Commissioners. A misunderstanding between the Commissioners and the Chamber of Commerce of this city brought about such a feeling of fear that the bonds would be defeated that the Commissioners took advantage of a defect in the election call—lack of proper time to advertise—and rescinded the order. It is not known whether another attempt will be made. It is known, however, that the roads are badly needed and that they can only be built by voting a bond issue.

It is now believed that within 60 days the city water-works plant, with its large modern filtration system and its rebuilt pumping station, will be in commission, furnishing the city with an ample supply of clear and wholesome water, as its franchise provides and its managers desire. The filtration plant has been described in these letters. It is thoroughly modern and will serve the city for many years to come. The water will be forced through the mains by two 5,000,000-gallon Allis-Chalmers pumps, after having been lifted from Elk river into the filters by two rotary pumps of ample capacity. It is calculated that 4,000,000 gallons daily is a sufficient supply for the city, but the larger pumps were secured for future demands, and they are duplicates to make security doubly sure. This plant would have been finished and in operation some time ago but for the fact that there has been a strike in the foundry where the pumps were being made.

The Meyers Company has just been granted a charter, and it is expected to take an early and active part in building up the city. This concern is composed of Col. Fred Paul Grosscup, J. D. Baines and George S. Couch of Charleston, Judge Peter S. Grosscup of Chicago, T. E. Meyers and P. A. Meyers of Ashland, Ohio. It has taken over a number of lots in the business section of the city and will begin at once the erection of a handsome six-story building, 50 feet front on Quarrier street and running back 120 feet. It is also thought the company will make an attractive offer to the Chamber of Com-

merce as to induce that organization to put up a building on some of its property. This company will doubtless prove a potential factor in the life of the city, for the restless activity of Colonel Grosscup will not admit of his being idle, and he has shown in many ways that he possesses the confidence of the men now associated with him to a degree that guarantees their backing any enterprise which he recommends. And he believes in Charleston.

In South Charleston there is much work being done. The Banner Window Glass Co., the Dunkirk Window Glass Co. and the Kenton Iron & Steel Co. are all working hard, straining every effort to complete their buildings so as to secure the benefits of their new location as soon as possible. They have several hundred men at work now, and would have more but for their inability to get them.

Half a hundred houses are in course of construction, and everything possible is being done to finish them so that workmen and their families may be housed. Water-works, sewerage system, street paving and the laying of sidewalks are being pushed rapidly, and gas mains are being laid and electric-light wires strung against the time when they will be needed. The public levee has been completed, and the handling of shipments by water adds to the economy of the work. More than a mile of siding has been laid in the new town by the Chesapeake & Ohio Railroad, and even that has been badly crowded at times by the immense amount of freight received.

One condition that has proved embarrassing in the progress of this city, and to which attention has been called many times, is the lack of residence houses. Probably never before in the history of an old town such as Charleston have so many people been found occupying so few houses. Hundreds of houses have been built every year for the past six years, and yet there has not been a time when the supply was equal to the demand. The men at the head of the South Charleston movement have endeavored to secure the investment of local capital in houses for rent, with but indifferent success, and the shortage is now being felt more than ever. Remunerative returns can be reaped from such investments, but so far there has been such a strong demand for local capital in developing coal mines and other properties that its owners have not cared to put it in those things that promise a simple interest return, albeit a large one. The time is ripe for money that is satisfied with a return of 10 and 12 per cent. to seek this city and take advantage of the opportunity here offered.

Cheering news comes continually from the Green Creek oil field on the edge of this and Roane counties. On Friday the United Fuel Co. brought in a 75-barrel pumper, making the tenth producer in the field, and no dry hole. The Bull Pen Company, already in possession of one good well, will bring in another in a day or two. The outlook for a large development in that field is particularly bright, and many holes will go down during the remainder of the summer and the coming autumn.

Resumption of work on the Coal River branch of the Chesapeake & Ohio Railroad and the promise of resumption on its other branches and the double-tracking of the main line have given the people here a much more optimistic feeling than that which prevailed a month ago.

The sale of the Cardiff Coal Co.'s property to the M. B. Coal Co., mention of which was first made in this correspondence, has been consummated, and the purchasing company is now contemplating the immediate opening up of new mines, preparation for water transportation and a largely increased output. "M. B." is

rather a peculiar name for a coal company, and the manner of its choosing was still more so. It was named for Miss Madge Banning, daughter of the late president of the rubber trust. Miss Banning's mother is the chief stockholder of the company, and her uncle, F. L. Tyree, is general manager. These same interests also own the "Black Betsy" mines, that name being given in honor of the well-known actress, Elizabeth Tyree, also a stockholder in both properties and sister of the chief owner. This was formerly the home of the family. GEORGE BYRNE.

## FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

#### Review of the Baltimore Market.

##### Office MANUFACTURERS' RECORD,

Baltimore, Md., August 7.

Business has been very dull in the Baltimore stock market during the past week. In the trading United Railways common sold from 13 3/4 to 12 3/4; the trust certificates from 13 3/4 to 13 1/4; the incomes from 53 1/2 to 52 1/2; the funding 5s from 80 to 79; the funding scrip at 80 to 79, and the first 4s from 87 1/2 to 87. Gas 6s changed hands at 102 3/4 to 102 1/4; do. 4 1/2s at 93; Seaboard 4s at 70; Cotton Duck 5s from 79 1/4 to 79 1/2; G. B. S. Brewing incomes from 22 3/4 to 23, and the firsts at 53 1/4 to 53 1/2.

Bank stocks sold thus: Citizens', 33; Howard, 12 3/4; Union, 114; Merchants', 170.

United States Fidelity & Guaranty was traded in at 108 to 108 1/2; Fidelity & Deposit at 128, and Maryland Casualty at 61.

Other securities were dealt in as follows: Consolidation Coal, 87 to 87 1/4; Atlantic Coast Line Consolidated 4s, 93 3/4 to 94; Baltimore City 5s, 191 1/4, W. L., 108; Columbia & Greenville 1sts, 108 1/4; Lake Roland 5s, 110 3/4 to 110 1/4; Houston Oil common, 7; Baltimore City 3 1/2s, 192 1/2, 95 1/2; Norfolk Railway & Light 5s, 94 1/4 to 95; Northern Central Railway stock, 90 1/2 to 89; Piedmont & Cumberland 5s, 98 3/4; West Virginia Central 6s, 102 3/4; City of Savannah 5s, 1900, 90 1/2; Atlantic Coast Line stock, 92 to 88 3/4; Annapolis & Potomac 5s, 101; Merchants & Miners' Transportation Co., 85; Atlanta & Charlotte Extension 4 1/2s, 99.

#### SECURITIES AT BALTIMORE.

##### Last Quotations for the Week Ended August 7, 1907.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	99	99
Atlantic Coast Line of Conn.....	100	120	120
Norfolk Railway & Light.....	25	25	25
Seaboard Company Common.....	100	12	14
Seaboard Company 2d Pfd.....	100	20	28
United Railways & Elec. Co., 50	100	12	13

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	32 1/2	33 1/4
First National Bank.....	100	120	125 1/2
Merchants' National Bank.....	100	171	171
National Bank of Commerce.....	15	25	25
National Howard Bank.....	10	12 1/4	12 1/2
National Marine Bank.....	30	37 1/2	37 1/2
National Mechanics' Bank.....	10	25	25
National Union Bank of Md.....	100	113	118
Old Town Bank.....	10	11 1/4	11 1/4
Third National Bank.....	100	109 1/2	109 1/2

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust & Guaranty.....	100	120	120
Maryland Casualty.....	25	99	99
Mercantile Trust & Deposit.....	50	125	125
U. S. Fidelity & Guaranty.....	100	109	109

Miscellaneous Stocks.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron Pfd.....	100	75	75
Con. Cotton Duck Common.....	50	9	10 1/2
Con. Cotton Duck Pfd.....	50	28	29 1/2
Consolidation Coal.....	100	87 1/2	89
G. B. S. Brewing Co.....	100	4	5
Mer. & Miners' Trans. Co.....	100	86	86

Railroad Bonds.	Par.	Bid.	Asked.
Albany & Northern 5s, 1946.....	100	95	95
Atlanta & Charlotte 1st 7s, 1907.....	100	98 1/2	98 1/2
Atlantic Coast Line 1st 4s, 1902.....	100	93 1/4	93 1/4
Atlantic Coast Line 4s, C. & O., 1902.....	100	82	82
Atlantic Coast Line (Conn.) 4s.....	100	80 1/2	80 1/2
Carolina Central 4s, 1946.....	100	90 1/4	90 1/4
Columbia & Greenville 1st 6s, 1916.....	100	107 1/2	108
Georgia & Alabama 5s, 1945.....	100	102	102 1/4
Georgia, Car. & Fla. 1st 5s, 1923.....	100	103	103
Georgia Sou. & Fla. 1st 5s, 1945.....	100	106	106
Maryland & Pennsylvania 4s, 1901.....	100	92 1/2	92 1/2
Norfolk & Car. 5s, 1939.....	100	110	110

Petersburg Class B 6s, 1926.....	121	124
Piedmont & Cum. 1st 6s, 1911.....	98	...
Raleigh & Augusta 1st 6s, 1926.....	116	...
Richmond & Danville Deb. 5s.....	103	...
Savannah, Fla. & West. 5s, 1934.....	107	...
Savannah, Fla. & West. 5s, 1934.....	123 1/2	...
Seaboard Air Line 4s, 1960.....	69 1/2	70
Seaboard Air Line 5s, 10-year, 1911.....	96	...
Washington Terminal 3 1/2s.....	86	86 1/2
Western Maryland new 4s, 1952.....	73 1/2	...
West Virginia Cen. 1st 6s, 1911.....	102 1/2	103 1/2
Wilmington, Col. & Aug. 6s, 1910.....	102 1/2	...
Wilmington & Wel. Gold 5s, 1935.....	109	...

**Street Railway Bonds.**

Anacostia & Potomac 5s, 1949.....	100 1/2	101 1/2
Baltimore City Pass. 5s, 1911.....	102	...
Balto., Sp. Pt. & C. 4 1/2s.....	90	...
Baltimore Traction 1st 5s, 1929.....	107	...
Central Ry. Con. 5s (Balto.), 1932, 1908	100	...
City & Suburban 5s (Balto.), 1922, 1906 1/2	100	...
City & Suburban 5s (Wash.), 1948, 100	100	...
Knoxville Traction 1st 5s, 1928.....	100	...
Lake Roland Elevated 5s, 1942.....	110 1/2	...
Lexington Ry. 1st 5s, 1949.....	100	...
Macon Ry. & L. 1st Con. 5s, 1963.....	92	93
Metropolitan 5s (Wash.), 1925.....	106 1/2	...
Norfolk Railway & Light 5s.....	94 1/2	95
North Baltimore 5s, 1942.....	110 1/2	111
United Railways 1st 4s, 1949.....	87	87 1/2
United Railways Inc. 4s, 1949.....	52 1/2	53

**Miscellaneous Bonds.**

Ala. Con. Coal & Iron 5s.....	89	...
Baltimore Electric 5s.....	93	...
Consolidated Gas 5s, 1910.....	102 1/2	103 1/2
Consolidated Gas 5s, 1939.....	107 1/2	...
Consolidated Gas 4 1/2s.....	93	93 1/2
G. B. S. Brewing 1st 5s.....	53	53 1/2
G. B. S. Brewing 2d Income.....	22 1/2	23
Maryland Steel 5s.....	101	...
Maryland Telephone 5s.....	80 1/2	85
Mt. Vernon-Woodby Cot. Duck 5s.....	79 1/4	79 1/2
United Elec. Lt. & Power 4 1/2s.....	88 1/2	91 1/2

**SOUTHERN COTTON-MILL STOCKS.**

Quotations furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending August 5.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	90	92
Alken Mfg. Co. (S. C.).....	91	...
American Spinning Co. (S. C.).....	140	...
Anderson Cotton Mills (S. C.).....	85	...
Arkwright Mills (S. C.).....	112	115
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	125	...
Belton Mills (S. C.).....	110	112 1/2
Blubb Mfg. Co. (Ga.).....	112 1/2	113 1/2
Brandon Mills (S. C.).....	125	135
Cabarrus Cotton Mills (N. C.).....	127	133
Chadwick Mfg. Co. (N. C.) Pfd.....	97	97
Chiquola Mfg. Co. (S. C.).....	121	126
Clifton Mfg. Co. (S. C.).....	115	120
Clifton Mfg. Co. (S. C.) Pfd.....	101	101
Clinton Cotton Mills (S. C.).....	147	...
Columbus Mfg. Co. (Ga.).....	96	101
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ala.).....	95	100
Darlington Mfg. Co. (S. C.).....	132	132
Eagle & Phenix Mills (Ga.).....	130	137 1/2
Easley Cotton Mills (S. C.).....	146	...
Enoree Mfg. Co. (S. C.).....	70	80
Enoree Mfg. Co. (S. C.) Pfd.....	99	100
Enterprise Mfg. Co. (Ga.).....	90	94
Exposition Cotton Mills (Ga.).....	225	...
Gaffney Mfg. Co. (S. C.).....	92	95
Gainesville Cotton Mills (Ga.).....	59	63
Granby Cot. Mills (S. C.) 1st Pfd.....	47 1/2	50 1/2
Graniteville Mfg. Co. (S. C.).....	163 1/2	170
Greenwood Cotton Mills (S. C.).....	97	100
Grendel Mills (S. C.).....	117	...
Henrietta Mills (N. C.).....	161	175
King Mfg. Co., John P. (Ga.).....	97	100
Lancaster Cotton Mills (S. C.).....	110	...
Lancaster Cot. Mills (S. C.) Pfd.....	98	98
Langley Mfg. Co. (S. C.).....	101	...
Laurens Cotton Mills (S. C.).....	190	190
Limestone Mills (S. C.).....	140	...
Lockhart Mills (S. C.).....	92	98 1/2
Lockhart Mills (S. C.) Pfd.....	97	100
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	98	98
Mariboro Cotton Mills (S. C.).....	90	93
Mayo Mills (S. C.).....	165	185
Mills Mfg. Co. (S. C.).....	110	...
Mills Mfg. Co. (S. C.) Pfd.....	191	191
Monaghan Mills (S. C.).....	109 1/2	109 1/2
Monarch Cotton Mills (S. C.).....	102	110
Newberry Cotton Mills (S. C.).....	140	150
Norris Cotton Mills (S. C.).....	111	120
Olympia Cot. Mills (S. C.) 1st Pfd.....	70	71
Orangeburg Mfg. Co. (S. C.) 1st Pfd.....	80	97
Orr Cotton Mills (S. C.).....	106	108 1/2
Pacolet Mfg. Co. (S. C.).....	175	175
Pacolet Mfg. Co. (S. C.) Pfd.....	100	101
Pelzer Mfg. Co. (S. C.).....	165	175
Piedmont Mfg. Co. (S. C.).....	165	175
Poe Mfg. Co. (S. C.).....	123	123
Raleigh Cotton Mills (N. C.).....	100	106
Richland Cot. Mills (S. C.) Pfd.....	52 1/2	52 1/2
Roanoke Mills (N. C.).....	150	165
Saxon Mills (S. C.).....	125	125
Sibley Mfg. Co. (Ga.).....	62	65
Spartan Mills (S. C.).....	150	155
Springstein Mills (S. C.).....	100	100
Trion Mfg. Co. (Ga.).....	137 1/2	137 1/2
Tucapau Mills (S. C.).....	195	200
Union-Buffalo Mills (S. C.) 1st Pfd.....	72	73
Victor Mfg. Co. (S. C.).....	133 1/2	135
Warren Mfg. Co. (S. C.).....	92	93 1/2
Warren Mfg. Co. Pfd.....	105	105
Washington Mills (Va.).....	30	40
Washington Mills.....	100	115
Whitney Mfg. Co. (S. C.).....	145	155
Wiscasset Mills (N. C.).....	130	136
Woodruff Cotton Mills (S. C.).....	127	135

**New Corporations.**

At Dialville, Texas, a bank with \$25,000 capital is being organized.

A bank with \$25,000 to \$50,000 capital is contemplated at Eatonton, Ga.

The Farmers' County Union at Parsons, Tenn., will, it is reported, organize a bank with \$50,000 capital.

A life insurance company is reported to be organizing at Selma, Ala., local business men being interested.

The Union Bank & Trust Co. of Bluefield, W. Va., has applied for permission to begin business immediately.

A bank with \$10,000 capital is reported in process of organization at Shendum, Rockingham county, Virginia.

L. B. Ward and others of Houston are reported to be organizing a State bank at Lufkin, Texas, with \$25,000 capital.

The Farmers' Union Bank is reported being organized at Lexington, Tenn., with \$25,000 capital. E. J. Timberlake is interested.

A bank with \$10,000 capital is reported organized at Black Mountain, N. C. Samuel E. McNeely, formerly of Mooresville, will be in charge.

A bank capitalized at \$15,000 is reported organized at Angie, La., with Geo. A. Scott, president; Colon O. Trent and Wm. J. Jones, vice-presidents.

The Commercial National Bank of Jefferson, Texas, has begun business; capital \$50,000. W. P. Schluter is president, and W. P. Schluter, vice-president.

The Cross Plains Bank of Cross Plains, Tenn., has begun business; capital \$20,000. The officers are Dr. T. D. Walton, president, and Saml. B. Wilson, cashier.

The Moore National Bank of Moore, Texas, capital \$25,000, has organized with H. E. Johnson, president; W. R. King, vice-president, and T. H. Mullen, cashier.

The First State Bank of Moody, Texas, has been chartered with \$15,000 capital by John S. Patterson, James E. Ferguson, L. C. Strange, Dennis Lynch and R. L. Polk.

The State Bank of Barksdale, Texas, is chartered; capital \$10,000. The stockholders are S. P. Stockton, H. P. Stockton, R. A. Stewart and Mrs. O. C. Connaway.

The Citizens' State Bank of Alice, Texas, capital \$35,000, has been chartered. The incorporators are James F. Scott, F. D. Bitterman, John F. Dunn and A. J. Bell.

The Farmers' State Bank of Bragg, I. T., has \$25,000 capital and the following officers: Sid. Garrett, president; Edwin B. Smith, vice-president; Claud Hamilton, cashier.

The Carrabelle State Bank at Carrabelle, Fla., has \$15,000 capital. The officers are L. O. Benton, president; R. F. Pickett, vice-president, and W. Minter, cashier.

The Woodbury Deposit Bank of Butler County, at Woodbury, Ky., has been incorporated with \$15,000 capital by J. L. Norris, W. T. Hines and W. W. Elrod of Woodbury.

The First National Bank of Silverton, Texas, is authorized to begin business; capital \$30,000; officers, John Burson, president; J. A. Bain, vice-president; D. C. Lowe, cashier.

The First National Bank of Crowder, I. T., has been approved; capital \$25,000. The organizers are J. B. Henderson, W. E. Crowder, C. F. Bush, G. L. Lansbury and Thomas S. Norris.

The First National Bank of Silverton, Texas, has been authorized to begin business; capital \$30,000. John Burson is president; J. A. Bain, vice-president, and D. C. Lowe, cashier.

The First National Bank of Burnside, Ky., has been approved; capital \$25,000. C. W. Stuart, G. S. Dudley, J. A. Mann, J. M. Lloyd, Wm. Upland and T. L. Gamblin are the organizers.

The Cleburne County Abstract Co. has been organized at Heber, Ark. The officers are W. L. Thompson, president; G. W. Reed, secretary, and A. G. Morris, vice-president and treasurer.

The Luther State Bank of Luther, O. T., has been granted a commission; capital \$10,000. The officers are W. J. Arthur, president; J. C. Arnett, vice-president, and William Campbell, cashier.

The Bank of Binghamton at Binghamton, Tenn., has been incorporated with \$15,000 capital by R. B. Sullivan, A. Y.

Aydelott, Wm. H. Bingham, C. H. Pasley, J. R. Younce and Geo. B. Stewart.

The First National Bank of Canton, Texas, has been approved; capital \$25,000. The organizers are L. L. Jester, Tyler, Texas; R. B. Longmire, M. L. Cox, G. M. Hilliard and T. P. Valentine.

The Citizens' National Bank of Grand Saline, Texas, capital \$30,000, has been approved. The organizers are John M. Dean, D. M. Jackson, J. O. Hunnallee, James Kirkland and K. N. Matthews.

The People's National Bank of Abingdon, Va., capital \$50,000, has been authorized to begin business. The officers are H. M. Honaker, president; W. M. Slemple, vice-president; W. E. Williams, cashier.

The Eureka Springs National Bank of Eureka Springs, Ark., has been approved; capital \$50,000. The organizers are C. M. Lawson of Fayetteville, Ark.; J. T. Hight, W. H. Morton, A. L. Trent and C. H. Bell.

The Farmers' Bank & Trust Co. of Nelson county is reported incorporated at Bardstown, Ky., with \$50,000 capital by W. G. and O. T. Trent of Lexington and J. W. Cotton and John B. Weller of Bardstown.

The Exchange National Bank of Waco, Texas, capital \$200,000, has been authorized to begin business with D. S. Eddins, president; A. P. Duncan and G. N. Hubby, vice-presidents, and F. E. McLarty, cashier.

The Bank of McLemoresville at McLemoresville, Tenn., has made application for a charter; capital \$10,000. The incorporators are J. H. Bramley, J. O. Haney, T. M. Carter, J. H. Hailey and E. H. Harrell.

The German National Bank will, it is reported, soon be organized at El Reno, O. T., with \$300,000 capital. It is further said that Herman Harms is to be president and R. C. Head of Louisville, Ky., cashier.

The Bank of Shawsville, capital \$25,000, has been organized at Shawsville, Va. The officers are J. L. Vaughan, president; J. W. Helm, first vice-president; G. W. Gardner, second vice-president; Chas. H. Brand, cashier.

The Bank of Springville at Springville, Ala., has been organized with \$25,000 capital. James L. Herring will be president; T. M. Moody, vice-president, and Hon. J. L. Forman, cashier. Business is to begin about October 1.

The National Fire Assurance Corporation is being organized at St. Louis, Mo.; capital \$200,000, surplus \$200,000. The proposed officers of the company are Harry M. Coudrey, president, and William M. Steel, secretary.

The Bank of Cove at Cove, Ark., has filed articles of incorporation; capital \$25,000. The incorporators are R. Goff, president; J. G. Hilton, vice-president; B. J. Spencer, secretary and treasurer; D. C. Goff and W. J. Barton.

The Farmers and Citizens' Bank of Gleason, Tenn., \$25,000 capital, has been granted a charter. The incorporators are A. C. Edwards, J. H. Brandy, J. T. Allman, T. N. Drewry, G. W. Adams, W. H. Parks and T. A. Lovelace.

The Merchants and Farmers' Bank of Mansfield, Ark., organized with \$25,000 capital, has been granted a charter. The incorporators are J. M. Spradling, president; T. P. Edwards, J. M. Marshall, J. T. Owen and N. B. Miller.

The Quinlan State Bank at Quinlan, O. T., erroneously reported last week as of Quinlan, Texas, capital \$15,000, has elected officers as follows: C. E. Washburn, president; J. T. Madison, vice-president; J. G. Bailey, cashier.

The Covington Savings Bank of Covington, Va., capital \$25,000 to \$50,000, has been granted a charter. J. E. Nettleton,

president; J. E. Campbell, vice-president; W. McD. Allister, secretary, and John S. Ham are the incorporators.

The First National Bank of Adairsville, Ky., capital \$25,000, has been authorized to begin business. The officers are H. E. Orndorff, president; G. A. Smith, vice-president; I. G. Mason, second vice-president, and L. S. Evans, cashier.

The Farmers' State Bank of Helena, O. T., capital \$10,000, has been chartered. It was formerly the First National Bank of Helena. The officers are W. M. Derringer, president; G. V. Knowlton, vice-president, and Robert M. Carr, cashier.

The First State Bank of Smithville, Texas, has, it is reported, been organized and has succeeded the Bank of Smithville. The officers are W. Burleson, president; E. Buesche, vice-president; W. L. Tausig, cashier; R. Saunders, assistant cashier.

The First State Bank of Turnersville, Texas, capital \$10,000 has been chartered to begin business September 1. The incorporators and directors are E. S. Wallace, president; G. F. Boone, A. D. Buchanan, D. W. Freeland and J. W. Butler.

The Mercantile Bank & Trust Co. of Dallas, Texas, has filed its charter; capital \$100,000. The incorporators are Frederick J. Norris, Edgar L. Swaine, Richard P. Boyer, Earnest A. Olds and Herbert L. Edwards of Dallas and Almon M. Young of Los Angeles, Cal.

The Power National Bank of Archer City, Texas, has filed application with the Comptroller of the Currency; capital \$30,000. It will succeed the Power Banking Co. The organizers are F. M. Power, Sr., H. A. Power, W. E. Forgy, Jacob Martine and F. M. Power, Jr.

The Citizens' Bank of Greene County has been chartered at Stanardsville, Va.; capital \$25,000, but it may begin business with \$5,000. The incorporators are E. W. Sims, president; Guil Barber, R. C. Powell, James A. Blake, John S. Chapman, B. I. Bickers, cashier; E. D. Davis, all of Stanardsville, Va.

The Sharpsburg Banking Co. of Sharpsburg, Nash county, North Carolina, has been chartered. Authorized capital \$7000 to \$30,000. The incorporators are Geo. T. Dawes, J. W. Robbins, J. H. Robbins of Sharpsburg; John D. Dawes of Elm City; George A. Lucas and W. B. Dawes of Rocky Mount, N. C.

The Bank of Wilkes at Wilkesboro, N. C., has been chartered with authorized capital from \$15,000 to \$125,000. The incorporators are R. A. Spainhour, C. F. Morrison, C. M. Sheets of Advance, N. C.; F. G. Holman, Charles H. Cowles, C. H. Sowers and O. F. Blevins. All except Mr. Sheets live at Wilkesboro.

The Dime Savings Bank of Washington, D. C., has been incorporated. The directors are Maurice D. Rosenberg, president; J. B. Harrell, vice-president; Daniel W. Baker, second vice-president; Alexander Wolf, general counsel; Timothy Ring, John F. Collins, Harry King, William A. Engel and Harry Friedlander.

The Deal's Island Bank of Somerset county, Maryland, at Deal's Island, has been organized. The directors are Joshua W. Miles, H. Fillmore Lankford, S. Frank Dashiell, James L. Bennett, Lewis M. Milbourne and William B. Spiva; officers, president, William B. Spiva; vice-president, S. Frank Dashiell; cashier, Arthur Andrews.

The Farmers and Merchants' Bank of Weathersby, Miss., has organized and will begin business in September. The directors are W. E. Coleman, president; D. J. McCallum, vice-president; Mr. Wilson of Crystal Springs, cashier; J. L. Roswell, W. M. Prine, W. E. Coleman, D. J.

[For Additional Financial News, See Pages 44 and 45.]



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